Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	"5876972".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/28 13:04
L2	560	((system$1 or method$1) with signal with transduction with pathway$1 with (screen$4 or assay$4 or identif$8))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/28 13:21
L3	0	((system$1 or method$1) with signal with transduction with pathway$1 with (screen$4 or assay$4 or identif$8)) with feedback with loop	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/28 13:22
L4	0	((system$1 or method$1) with signal with transduction with pathway$1 with (screen$4 or assay$4 or identif$8)) with feedback	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/28 13:21
L5	1527	(system$1 or method$1) with signal with transduction with pathway$1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/28 13:22
L6	0	5 with feedback with loop	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/28 13:22
L7	4	((system$1 or method$1) with signal with transduction with pathway$1 with (screen$4 or assay$4 or identif$8)) and (feedback with loop)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/28 13:24
L8	27	((system$1 or method$1) with signal with transduction with pathway$1) and (feedback with loop)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/28 13:24
L9	23	8 not 7	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/01/28 13:24

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      (FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005)

      FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 12:03:27 ON 28 JAN 2005
L1           460 S (LURIA, S?)/IN,AU
L2        468164 S SIGNAL (S) TRANSDUCTION
L3             4 S L1 AND L2
L4             3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5             1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
L6             1 S L5 NOT L4
L7            14 S (LURIA, SYLV?)/IN,AU
L8            12 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)
L9            10 S L8 NOT L3
L10        21847 S ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)
L11         3786 S L10 (S) (SCREEN? OR IDENTIF? OR SELECT? OR ASSAY?)
L12           69 S L11 (S) (TRANSACTIVAT? OR GAL4 OR GAL-4 OR (("T7" OR "T3" OR
L13            0 S L11 AND L7
L14           21 S L12 AND (FUSION OR HYBRID OR CHIMER?)
L15           21 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)
L16            1 S L12 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L17           31 S L11 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L18           30 S L17 NOT L14
L19           27 DUPLICATE REMOVE L18 (3 DUPLICATES REMOVED)
L20        17415 S ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CFP OR YFP
L21           31 S L20 AND (FEEDBACK (S) LOOP)
L22            3 S L21 AND (SIGNAL (S) TRANSDUCTION)
L23            9 DUPLICATE REMOVE L21 (22 DUPLICATES REMOVED)
L24            1 S L23 AND L22
L25          231 S L20 (S) (PLURALIT? OR LIBRAR?)
L26           15 S L25 AND (SIGNAL (2W) TRANSDUCTION)
L27           15 DUPLICATE REMOVE L26 (0 DUPLICATES REMOVED)
L28            0 S L26 AND FEEDBACK
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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	4	OCT 28	KOREAPAT now available on STN
NEWS	5	NOV 30	PHAR reloaded with additional data
NEWS	6	DEC 01	LISA now available on STN
NEWS	7	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS	8	DEC 15	MEDLINE update schedule for December 2004
NEWS	9	DEC 17	ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	10	DEC 17	COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	JAN 26	CA/CAPLUS - Expanded patent coverage to include the Russian Agency for Patents and Trademarks (ROSPATENT)

NEWS EXPRESS	JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
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NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005

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=> file medline embase biosis caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'MEDLINE' ENTERED AT 12:03:27 ON 28 JAN 2005

FILE 'EMBASE' ENTERED AT 12:03:27 ON 28 JAN 2005
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FILE 'BIOSIS' ENTERED AT 12:03:27 ON 28 JAN 2005
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=> s (luria, s?)/in,au
'IN' IS NOT A VALID FIELD CODE
'IN' IS NOT A VALID FIELD CODE
L1          460 (LURIA, S?)/IN,AU

=> s signal (s) transduction
L2       468164 SIGNAL (S) TRANSDUCTION

=> s l1 and l2
L3            4 L1 AND L2

=> duplicate remove l3
DUPLICATE PREFERENCE IS 'EMBASE, BIOSIS, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L3
L4             3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)

=> d ibib ab l4 1,2,3

L4   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2001:397083  CAPLUS
DOCUMENT NUMBER:          135:15091
TITLE:                    Methods for detecting proteins regulating
                          signal transduction pathways using
                          an expression system
INVENTOR(S):              Luria, Sylvie
PATENT ASSIGNEE(S):       STIL Biotechnologies Ltd., Israel
SOURCE:                   PCT Int. Appl., 80 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
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     WO 2001038569         A1    20010531    WO 2000-IL680            20001025
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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EP 1234054 A1 20020828 EP 2000-971676 20001025
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
PRIORITY APPLN. INFO.: US 1999-449532 A 19991129
WO 2000-IL680 W 20001025

AB The present invention relates to expression systems and methods for detecting protein-protein interactions in cells by expressing in the cells small peptide mols. and monitoring their affect on cellular **signal transduction** pathways. An expression system useful for the detection and isolation of a polypeptide capable of regulating a transduction pathway is provided. The expression system comprises (a) a first expression construct including a first coding region encoding a reporter mol., the first coding region being under transcriptional control of a cis acting regulatory sequence element, the cis acting regulatory sequence element being regulatable by a trans acting regulator of the transduction pathway; and (b) an expression library including a plurality of second expression constructs, each of the plurality of second expression constructs of the expression library including a second coding region encoding for one of a plurality of polypeptides, the second coding region being under a transcriptional control of a promoter, such that when the first expression construct and a second expression construct of the plurality of second expression constructs of the expression library are introduced into a cell, the cell endogenously expressing the trans acting regulator of the transduction pathway, a level of expression of the reporter mol. in the cell is indicative of regulation of the transduction pathway by a specific polypeptide of the plurality of polypeptides expressed by the cell from the second expression construct.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:610523 CAPLUS
DOCUMENT NUMBER: 117:210523
TITLE: Human immunodeficiency virus type 1 Nef protein inhibits NF-κB induction in human T cells
AUTHOR(S): Niederman, Thomas M. J.; Garcia, J. Victor; Hastings, W. Randall; **Luria, Sylvie**; Ratner, Lee
CORPORATE SOURCE: Sch. Med., Washington Univ., St. Louis, MO, 63110, USA
SOURCE: Journal of Virology (1992), 66(10), 6213-19
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Human immunodeficiency virus type 1 (HIV-1) can establish a persistent and latent infection in CD4+ T lymphocytes. Production of HIV-1 from latently infected cells requires host cell activation by T-cell mitogens. This activation is mediated by the host transcription factor NF-κB. The authors report here that the HIV-1-encoded Nef protein inhibits the induction of NF-κB DNA-binding activity by T-cell mitogens. However, Nef does not affect the DNA-binding activity of other transcription factors implicated in HIV-1 regulation, including SP-1, USF, URS, and NF-AT. Addnl., Nef inhibits the induction of HIV-1- and interleukin 2-directed gene expression, and the effect of HIV-1 transcription depends on an intact NF-κB-binding site. These results indicate that defective recruitment of NF-κB may underlie Nef's neg. transcriptional effects on the HIV-1 and interleukin 2 promoters. Further evidence suggest that Nef inhibits NF-κB induction by interfering with a signal derived from the T-cell receptor complex.

L4 ANSWER 3 OF 3 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 1
ACCESSION NUMBER: 91314158 EMBASE
DOCUMENT NUMBER: 1991314158
TITLE: Expression of the type 1 human immunodeficiency virus Nef

protein in T cells prevents antigen receptor-mediated induction of interleukin 2 mRNA.
AUTHOR: **Luria S.**; Chambers I.; Berg P.
CORPORATE SOURCE: Department of Biochemistry, Beckman Center, Stanford University Medical Center, Stanford, CA 94305, United States
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1991) 88/12 (5326-5330). ISSN: 0027-8424 CODEN: PNASA6
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Stable transformants of the Jurkat T-cell line have been obtained that express either of two distinct forms of the type 1 human immunodeficiency virus nef gene: the nef-1-encoded protein (Nef-1) contains alanine, glycine, and valine at positions 15, 29, and 33, respectively; the protein specified by nef-2 (Nef-2) has threonine, arginine, and alanine at the corresponding positions. When Jurkat cells or their Nef-2-expressing transformants are treated with phorbol 12-myristate 13-acetate (PMA) plus either phytohemagglutinin (PHA) or antibodies against CD3ε, T-cell receptor β chain, or CD2, there is a prompt increase in interleukin 2 (IL-2) mRNA and intracellular calcium and in the IL-2 receptor α chain on the cell surface. Although cells expressing Nef-1 also induce calcium mobilization and the production of IL-2 receptor α chain, the formation of IL-2 mRNA is blocked in response to these stimuli. Moreover, Nef-1-expressing cells transfected with a plasmid in which the IL-2 promoter is fused to the chloramphenicol acetyltransferase (CAT) gene fail to induce CAT following treatment with PMA and PHA. By contrast, the parental and Nef-2-containing cells induce CAT normally. Nef-1-expressing cells can produce IL-2 mRNA in response to a combination of PMA and ionomycin, although much less efficiently than the parental Jurkat cells or Nef-2-expressing cells. These findings, and others described herein, suggest that the virally encoded Nef protein interferes with a signal emanating from the T-cell receptor complex that induces IL-2 gene transcription.

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     (FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 12:03:27 ON 28 JAN 2005
L1           460 S (LURIA, S?)/IN,AU
L2        468164 S SIGNAL (S) TRANSDUCTION
L3             4 S L1 AND L2
L4             3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)

=> s l1 and ((protein or polypeptide) (3n) fusion?)
L5             1 L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)

=> s l5 not l4
L6             1 L5 NOT L4

=> d ibib ab

L6   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:          1988:565038  CAPLUS
DOCUMENT NUMBER:           109:165038
TITLE:                     Mutant kil gene product-resistant microbes and a
                           system for release of periplasmic proteins
```

INVENTOR(S): **Luria, Salvador E.**; Suit, Joan Lucia; Jackson, Jennifer A.
PATENT ASSIGNEE(S): Repligen Corp., USA; Massachusetts Institute of Technology
SOURCE: Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 278697	A2	19880817	EP 1988-300987	19880205
EP 278697	A3	19890607		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4948735	A	19900814	US 1987-11579	19870206
JP 63202375	A2	19880822	JP 1988-24060	19880205
PRIORITY APPLN. INFO.:			US 1987-11579 A	19870206

AB Mutant microbes carrying a kil gene which is expressed during growth are resistant to the kil gene product of CoE1 and pColE2 and release 20-50% of the periplasmic proteins throughout the growth cycle, or up to 100% of these proteins when they approach stationary phase. These mutants may be used to prepare recombinant proteins which are excreted into the periplasm. E. coli A153 I-I, a mutant resistant to the kil gene product, was prepared by several cycles of mitomycin C treatment of E. coli A153/pDMS630 (the plasmid contains a kil gene which is induced with mitomycin C). Mutant II was transformed with plasmid pUKI1, which contains the kil and bla genes. Samples removed from a culture of this transformant during the log phase indicated that .apprx.50-60% of the β-lactamase was released into the medium, but <1% of the cytoplasmic enzyme β-galactosidase was released.

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     (FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 12:03:27 ON 28 JAN 2005
L1           460 S (LURIA, S?)/IN,AU
L2        468164 S SIGNAL (S) TRANSDUCTION
L3             4 S L1 AND L2
L4             3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5             1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
L6             1 S L5 NOT L4

=> s (luria, sylv?)/in,au
'IN' IS NOT A VALID FIELD CODE
'IN' IS NOT A VALID FIELD CODE
L7            14 (LURIA, SYLV?)/IN,AU

=> duplicate remove l7
DUPLICATE PREFERENCE IS 'BIOSIS, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L7
L8            12 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)

=> s l8 not l3
L9            10 L8 NOT L3

=> d ti l9 1-10

L9   ANSWER 1 OF 10  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation.  on
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TI Method for identifying translationally regulated genes.

L9 ANSWER 2 OF 10 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
TI Poliovirus 2A protease induces apoptotic cell death.

L9 ANSWER 3 OF 10 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
TI HIV-1 Nef protein inhibits the recruitment of AP-1 DNA-binding activity in human T-cells.

L9 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Peptide libraries and reporter gene-expressing cells in identification of peptide regulators of biological pathways

L9 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for identifying genes regulated at mRNA level

L9 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for identifying translationally regulated genes

L9 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Expression of the type 1 human immunodeficiency virus Nef protein in T cells prevents antigen receptor-mediated induction of interleukin 2 mRNA

L9 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Promoter and enhancer elements in the rearranged α chain gene of the human T cell receptor

L9 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI The long terminal repeat of the intracisternal A particle as a target for transactivation by oncogene products

L9 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
TI Mechanism of activation of the mouse c-mos oncogene by the LTR of an intracisternal A-particle gene

=> d ibib ab l9 1-10

L9 ANSWER 1 OF 10 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
ACCESSION NUMBER: 2000:324186 BIOSIS
DOCUMENT NUMBER: PREV200000324186
TITLE: Method for identifying translationally regulated genes.
AUTHOR(S): **Luria, Sylvie** [Inventor, Reprint author]; Einat, Paz [Inventor]; Harris, Nicholas [Inventor]; Skaliter, Rami [Inventor]; Grosman, Zehav [Inventor]
CORPORATE SOURCE: Nes-Ziona, Israel
ASSIGNEE: QBI Enterprises, Ltd., Israel
PATENT INFORMATION: US 6013437 January 11, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Jan. 11, 2000) Vol. 1230, No. 2. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 2 Aug 2000
Last Updated on STN: 7 Jan 2002
AB A method for identifying translationally regulated genes includes selectively stimulating translation of an unknown target mRNA with a stress inducing element wherein the target mRNA is part of a larger sample of mRNA. The mRNA sample is divided into pools of translated and untranslated mRNA which are differentially analyzed to identify genes that are translationally regulated by the stress inducing element. A method

for identifying gene sequences coding for internal ribosome entry sites includes inhibiting 5' cap-dependant mRNA translation in a cell, collecting a pool of mRNA from the cells, and differentially analyzing the pool of mRNA to identify genes with sequences coding for internal ribosome entry sites.

L9 ANSWER 2 OF 10 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 2000:113245 BIOSIS
DOCUMENT NUMBER: PREV200000113245
TITLE: Poliovirus 2A protease induces apoptotic cell death.
AUTHOR(S): Goldstaub, Dan; Gradi, Alessandra; Bercovitch, Zippi; Grosmann, Zehava; Nophar, Yaron; **Luria, Sylvie**; Sonenberg, Nahum; Kahana, Chaim [Reprint author]
CORPORATE SOURCE: Department of Molecular Genetics, Weizmann Institute of Science, Rehovot, 76100, Israel
SOURCE: Molecular and Cellular Biology, (Feb., 2000) Vol. 20, No. 4, pp. 1271-1277. print.
CODEN: MCEBD4. ISSN: 0270-7306.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Mar 2000
Last Updated on STN: 3 Jan 2002

AB A cell line was generated that expresses the poliovirus 2A protease in an inducible manner. Tightly controlled expression was achieved by utilizing the muristerone A-regulated expression system. Upon induction, cleavage of the eukaryotic translation initiation factor 4GI (eIF4GI) and eIF4GII is observed, with the latter being cleaved in a somewhat slower kinetics. eIF4G cleavage was accompanied by a severe inhibition of protein synthesis activity. Upon induction of the poliovirus 2A protease, the cells displayed fragmented nuclei, chromatin condensation, oligonucleosome-size DNA ladder, and positive TUNEL (terminal deoxynucleotidyl-transferase-mediated dUTP-biotin nick end labeling) staining; hence, their death can be characterized as apoptosis. These results indicate that the expression of the 2A protease in mammalian cells is sufficient to induce apoptosis. We suggest that the poliovirus 2A protease induces apoptosis either by arresting cap-dependent translation of some cellular mRNAs that encode proteins required for cell viability, by preferential cap-independent translation of cellular mRNAs encoding apoptosis inducing proteins, or by cleaving other, yet unidentified cellular target proteins.

L9 ANSWER 3 OF 10 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 1993:273969 BIOSIS
DOCUMENT NUMBER: PREV199396004194
TITLE: HIV-1 Nef protein inhibits the recruitment of AP-1 DNA-binding activity in human T-cells.
AUTHOR(S): Niederman, Thomas M. J.; Hastings, W. Randall; **Luria, Sylvie**; Bandres, Juan C.; Ratner, Lee [Reprint author]
CORPORATE SOURCE: Washington Univ. Sch. Med., 660 S. Euclid Ave., Box 8125, St. Louis, MO 63110, USA
SOURCE: Virology, (1993) Vol. 194, No. 1, pp. 338-344.
CODEN: VIRLAX. ISSN: 0042-6822.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Jun 1993
Last Updated on STN: 9 Jun 1993

AB The human immunodeficiency virus type 1 long terminal repeat, HIV-1-LTR, contains binding sites for several cellular transcription factors which contribute to HIV-1 gene expression. Our previous studies on the function of the HIV-1-encoded Nef protein suggested that Nef may be an inhibitor HIV-1 transcription. To determine whether Nef affects the binding of cellular factors implicated in HIV-1 regulation, 32P-labeled oligonucleotides corresponding to the binding sites were incubated with

nuclear extracts prepared from Nef-expressing T-cell lines that were not stimulated or were stimulated with T-cell mitogens. We found that Nef inhibited the recruitment of AP-1 DNA-binding activity in mitogen-stimulated human T-cells. Additionally, Nef expressing cells were transiently transfected with a plasmid in which HIV-1 AP-1 DNA recognition sequences were cloned downstream of the chloramphenicol acetyltransferase (CAT) gene. Mitogen-mediated transcriptional activation of the CAT gene in this construct was inhibited in Nef-expressing cells but not in control cells. These studies suggest that, by inhibiting AP-1 activation, Nef may play a role in regulating HIV-1 gene expression in infected T-cells.

L9 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:133561 CAPLUS
DOCUMENT NUMBER: 138:183486
TITLE: Peptide libraries and reporter gene-expressing cells in identification of peptide regulators of biological pathways
INVENTOR(S): **Luria, Sylvie**
PATENT ASSIGNEE(S): Stil Biotechnologies Ltd., Israel
SOURCE: PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003014696	A2	20030220	WO 2002-IL646		20020806
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
US 2004253635	A1	20041216	US 2004-484440		20040129
PRIORITY APPLN. INFO.:			US 2001-309778P	P	20010806
			WO 2002-IL646	W	20020806

AB A method of uncovering a putative functional analog of a peptide regulator of a biol. pathway is disclosed. The method comprises: (a) generating a library of proteins and/or nucleic acids involved in the biol. pathway; (b) contacting the proteins and/or nucleic acids with the peptide regulator to obtain complexes of pathway proteins and peptide regulators; (c) incubating the complexes in the presence of the potential peptide regulator analogs; and (d) identifying analogs capable of competing with the peptide regulator for binding to the pathway proteins and/or nucleic acids. Thus, NIH 3T3 cells expressing a CD4 or GFP reporter gene under control of a VEGF promoter (IGF-1-responsive) was transformed with a cDNA library encoding fragments of IGF-1 receptor, EHD-1, and IRS-1. The cells were (1) treated with IGF-1, or (2) not treated with IGF-1 then screened for CD4 or GFP expression. In case 1, expression neg. cells contain inhibitors of IGF-1 signaling. In case 2, expression pos. cells contain activators of IGF-1 signaling. The cDNA encoding these active peptides is cloned and sequenced to identify the bioactive sequences. Similar methods are disclosed for identifying regulators of apoptosis and bacterial growth. Other methods for identifying promoter-binding proteins regulating p53 or VEGF gene expression are also disclosed.

L9 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:736986 CAPLUS
DOCUMENT NUMBER: 131:347468
TITLE: Method for identifying genes regulated at mRNA level
INVENTOR(S): Einat, Paz; Skaliter, Rami; Mor, Orna; **Luria, Sylvie**; Harris, Nicholas; Grosman, Zehava
PATENT ASSIGNEE(S): Quark Biotech Inc., USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958718	A1	19991118	WO 1999-US10297	19990511
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9939817	A1	19991129	AU 1999-39817	19990511
EP 1002135	A1	20000524	EP 1999-922928	19990511
R: AT, BE, CH, DE, FR, GB, IT, LI				
JP 2002514441	T2	20020521	JP 2000-548509	19990511
US 2002037511	A1	20020328	US 2001-792471	20010223
PRIORITY APPLN. INFO.:			US 1998-84944P P	19980511
			US 1999-309862 B1	19990511
			WO 1999-US10297 W	19990511

AB A method for identifying genes regulated at the RNA level by cue-induced (e.g., pathogen or drug-induced) gene expression is disclosed. The invention relates to the rapid isolation of differentially expressed or developmentally regulated gene sequences through anal. of mRNAs obtained from specific cellular compartments and comparing the changes in the relative abundance of the mRNA in these compartments as a result of applying a cue to the tested biol. sample. The cellular compartments include polysomal and nonpolysomal fractions, nuclear fractions, cytoplasmic fractions, and spliceosomal fractions. Genes that are differentially expressed due to regulation on any one or more of a number of levels, may be characterized. Regulation levels include translational regulation, transcriptional regulation, mRNA stability regulation, and mRNA transport regulation. A method for identifying gene sequences coding for internal ribosome entry sites is also provided, which includes inhibiting 5'cap-dependent mRNA translation in a cell, collecting a pool of mRNA from the cells, and differentially analyzing the pool of mRNA to identify genes with sequences coding for internal ribosome entry sites. The 5'-cap-dependent mRNA translation may be inhibited by transiently expressing poliovirus 2A protease in the cell. Thus, polysomal probes were generated to analyze genes regulated at the translational level in a heat-shocked system. Addnl., regulation of genes at the transcriptional level was analyzed with mRNA isolated from nuclei. Also, IRES-containing genes from human HEK-293 cells were identified.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 10 CAPLUS
ACCESSION NUMBER: 1998:344498 CAPLUS
DOCUMENT NUMBER: 129:24155
TITLE: Method for identifying translationally regulated genes
INVENTOR(S): **Luria, Sylvie**; Einat, Paz; Harris, Nicholas;

Skaliter, Rami; Grosman, Zehava
PATENT ASSIGNEE(S): QBI Enterprises Ltd., Israel; Kohn, Kenneth, I.; Luria, Sylvie; Einat, Paz; Harris, Nicholas; Skaliter, Rami; Grosman, Zehava
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9821321	A1	19980522	WO 1997-US20831		19971112
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
US 6013437	A	20000111	US 1996-748130		19961112
CA 2271068	AA	19980522	CA 1997-2271068		19971112
AU 9852580	A1	19980603	AU 1998-52580		19971112
EP 942969	A1	19990922	EP 1997-947522		19971112
R: AT, BE, CH, DE, FR, GB, IT, LI, LU					
JP 2002515754	T2	20020528	JP 1998-522854		19971112
PRIORITY APPLN. INFO.:			US 1996-748130	A	19961112
			US 1997-943586	A	19971003
			WO 1997-US20831	W	19971112

AB A method for identifying translationally regulated genes includes selectively stimulating translation of an unknown target mRNA using a stress-inducing factor wherein the target mRNA is part of a larger sample of mRNA. The mRNA sample is divided into pools of translated and untranslated mRNA (e.g., polysomal and nonpolysomal mRNA) which are differentially analyzed to identify genes that are translationally regulated by the stress inducing element. A method for identifying gene sequences coding for internal ribosome entry sites includes inhibiting 5'cap-dependent mRNA translation in a cell, collecting a pool of mRNA from the cells, and differentially analyzing the pool of mRNA to identify genes with sequences coding for internal ribosome entry sites. One method of inhibiting 5'cap-dependent mRNA translation is by expression of poliovirus 2A protease, which cleaves and inactivates eIF-4γ. Application of the method to identification of genes regulated by oxygen deprivation or by heat stress was demonstrated. By separation of mRNA into polysomal and nonpolysomal fractions followed by differential display techniques or by differential expression anal. resulted in identification of many genes which could not be identified when total mRNA populations were compared.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:490494 CAPLUS
DOCUMENT NUMBER: 115:90494
TITLE: Expression of the type 1 human immunodeficiency virus Nef protein in T cells prevents antigen receptor-mediated induction of interleukin 2 mRNA
AUTHOR(S): **Luria, Sylvie**; Chambers, Ian; Berg, Paul
CORPORATE SOURCE: Beckman Cent., Stanford Univ., Stanford, CA, 94305, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1991), 88(12), 5326-30
CODEN: PNASA6; ISSN: 0027-8424

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Stable transformants of the Jurkat T-cell line have been obtained that express either of two distinct forms of the type 1 human immunodeficiency virus nef gene: the nef-1-encoded protein (Nef-1) contains alanine, glycine, and valine at positions 15, 29, and 33, resp.; the protein specified by nef-2 (Nef-2) has threonine, arginine, and alanine at the corresponding positions. When Jurkat cells or their Nef-2-expressing transformants are treated with phorbol 12-myristate 13-acetate (PMA) plus either phytohemagglutinin (PHA) or antibodies against CD3ε, T-cell receptor β chain, or CD2, there is a prompt increase and in the IL-2 receptor α chain on the cell surface. Although cells expressing Nef-1 also induce calcium mobilization and the production of IL-2 receptor α chain, the formation of IL-2 mRNA is blocked in response to these stimuli. Moreover, Nef-1-expressing cells transfected with a plasmid in which the IL-2 promoter is fused to the chloramphenicol acetyltransferase (CAT) gene fail to induce CAT following treatment with PMA and PHA. By contrast, the parental and Nef-2-containing cells induce CAT normally. Nef-1-expressing cells can produce IL-2 mRNA in response to a combination of PMA and ionomycin, although much less efficiently than the parental Jurkat cells or Nef-2-expressing cells. Apparently, the virally encoded Nef protein interferes with a signal emanating from the T-cell receptor complex that induces IL-2 gene transcription.

L9 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1987:630490 CAPLUS
DOCUMENT NUMBER: 107:230490
TITLE: Promoter and enhancer elements in the rearranged α chain gene of the human T cell receptor
AUTHOR(S): **Luria, Sylvie**; Gross, Gideon; Horowitz, Mia; Givol, David
CORPORATE SOURCE: Dep. Chem. Immunol., Weizmann Inst. Sci., Rehovot, 76100, Israel
SOURCE: EMBO Journal (1987), 6(11), 3307-12
CODEN: EMJODG; ISSN: 0261-4189
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The sequence of a rearranged human T-cell receptor (TCR) VαJα gene and its germline counterparts were cloned and compared. The only difference in the coding region sequence was confined to the joining region where 3 nucleotides, TTG, unaccountable by either Vα or Jα sequence, were present. Nuclease S1 mapping identified the mRNA start of the α chain 70 nucleotides upstream from the initiator ATG. A 600-bp fragment containing the sequences upstream to the ATG drives the expression of the bacterial chloramphenicol acetyltransferase (CAT) gene. This promoter activity is T-cell-specific, since it can be demonstrated in human T-cells but not in B-cells or HeLa cells. A 1.1-kb BamHI-HindIII fragment located 5' to the first exon of the Cα gene enhanced transcription from either the heterologous SV40 promoter or the homologous TCR α-chain promoter. This enhancement activity was independent of the location of the fragment with respect to CAT and was specific to lymphoid cells (either T or B cells) but cannot be demonstrated in HeLa cells.

L9 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1986:124031 CAPLUS
DOCUMENT NUMBER: 104:124031
TITLE: The long terminal repeat of the intracisternal A particle as a target for transactivation by oncogene products
AUTHOR(S): **Luria, Sylvia**; Horowitz, Mia
CORPORATE SOURCE: Dep. Chem. Immunol., Weizmann Inst. Sci., Rehovot, 76100, Israel
SOURCE: Journal of Virology (1986), 57(3), 998-1003

CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The c-mos oncogene becomes activated in myeloma XRPC-24 via insertion of an intracisternal A particle (IAP) long terminal repeat (LTR). The inserted LTR serves as a promoter from which transcription of the 3' rearranged c-mos initiates. The insertion is in a head-to-head orientation, such that the transcriptional orientations of the IAP and the 3' rearranged c-mos are opposite. This IAP LTR has 2 promoters, one transcribing the IAP genome and the other transcribing the rearranged c-mos. Since the IAP genomes are actively transcribed in mouse myelomas but not in normal cells, transcriptional activation of the IAP was examined in the presence of active oncogene products, especially nuclear ones. The 5' LTR of the IAP inserted in myeloma XRPC-24 was chosen as a convenient model to test the effect of viral and cellular oncogene products. These included SV40 virus large-T antigen, the adenovirus E1A gene product, the myc gene product, and p53. The LTR was coupled to the bacterial gene coding for chloramphenicol acetyltransferase (CAT) in 2 orientations, and the levels of CAT directed by the LTR promoters were assayed in either the presence or the absence of the oncogene products. The levels of CAT directed by the 5' LTR promoter transcribing the IAP were significantly elevated in the presence of SV40 large-T antigen, the adenovirus E1A and myc gene products, and p53. The promoter transcribing the rearranged c-mos was transactivated by SV40 large-T antigen and the adenovirus E1A gene product. Oncogene products may have an important role in turning on promoters of other genes. The IAP LTR may serve as a useful model for studying the effect of various gene products on promoters which are known to be activated in the malignant state.

L9 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1985:57066 CAPLUS
DOCUMENT NUMBER: 102:57066
TITLE: Mechanism of activation of the mouse c-mos oncogene by the LTR of an intracisternal A-particle gene
AUTHOR(S): Horowitz, Mia; **Luria, Sylvia**; Rechavi, Gideon; Givol, David
CORPORATE SOURCE: Dep. Chem. Immunol., Weizmann Inst. Sci., Rehovot, 76100, Israel
SOURCE: EMBO Journal (1984), 3(12), 2937-41
CODEN: EMJODG; ISSN: 0261-4189
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the mouse myeloma XRPC-24, the DNA of an intracisternal A-particle (IAP) is inserted within the coding region of gene c-mos. This insertion splits c-mos into a 3' rc-mos and a 5' rc-mos separated by .apprx.4.7 kilobases (kb) of IAP DNA. The insertion is in a head-to-head orientation and brings the 5' long terminal repeat (LTR) of the IAP in juxtaposition to the 3' rc-mos such that the IAP and the 3' rc-mos are transcribed in opposite directions. The intact c-mos gene is usually dormant, whereas the 3' rc-mos is actively transcribed and is capable of transforming NIH3T3 cells. In an effort to understand the nature of this activation, the 5' ends of the 3' rc-mos mRNA present in XPRC-24 were mapped. Two main mRNA start sites, one mapping to the junction of the 3' rc-mos and the 5' LTR, and the other located 10 nucleotides upstream to this junction, within the 5' LTR were found. Apparently, the 3' rc-mos in XRPC-24 was activated by insertion of a promoter provided by the LTR of an IAP genome. The 5' LTR appears to possess promoter activities in 2 directions. This conclusion was confirmed by the fact that this 5' LTR, in both orientations, was able to activate the bacterial gene coding for chloramphenicol acetyltransferase (CAT) in the modular vector pSVOCAT.

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     (FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 12:03:27 ON 28 JAN 2005
L1           460 S (LURIA, S?)/IN,AU
L2        468164 S SIGNAL (S) TRANSDUCTION
L3             4 S L1 AND L2
L4             3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5             1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
L6             1 S L5 NOT L4
L7            14 S (LURIA, SYLV?)/IN,AU
L8            12 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)
L9            10 S L8 NOT L3

=> s ((system or method?) (s) signal (s) transduction)
   3 FILES SEARCHED...
L10       21847 ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)

=> s l10 (s) (screen? or identif? or select? or assay?)
L11        3786 L10 (S) (SCREEN? OR IDENTIF? OR SELECT? OR ASSAY?)

=> s l11 (s) (transactivat? or GAL4 or gal-4 or (("T7" or "T3" or "SP6") (2w)
polymerase) or lacI or araC or repressor)
L12          69 L11 (S) (TRANSACTIVAT? OR GAL4 OR GAL-4 OR (("T7" OR "T3" OR
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=> s l11 and l7
L13           0 L11 AND L7

=> s l12 and (fusion or hybrid or chimer?)
L14          21 L12 AND (FUSION OR HYBRID OR CHIMER?)

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KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L14
L15           21 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)

=> d ti l15 1-21

L15  ANSWER 1 OF 21  EMBASE  COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
TI   Inducible translocation trap: A system for detecting inducible nuclear
     translocation.

L15  ANSWER 2 OF 21  EMBASE  COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
TI   ATBF1 enhances the suppression of STAT3 signaling by interaction with
     PIAS3.

L15  ANSWER 3 OF 21  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Cellular signal transduction pathway-based signal generation and drug
     screening system

L15  ANSWER 4 OF 21  EMBASE  COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
TI   NF-κB p65 transactivation domain is involved in the
     NF-κB-inducing kinase pathway.

L15  ANSWER 5 OF 21  EMBASE  COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
TI   MgLA, a small GTPase, interacts with a tyrosine kinase to control type IV
     pili-mediated motility and development of Myxococcus xanthus.

L15  ANSWER 6 OF 21  EMBASE  COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
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on STN
TI Human hypoxic signal transduction through a signature motif in hepatocyte nuclear factor 4.

L15 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods and compositions for amplifying and assaying intracellular signal transduction and uses in drug screening

L15 ANSWER 8 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Stable luciferase reporter cell lines for signal transduction pathway readout using GAL4 **fusion** transactivators.

L15 ANSWER 9 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Two-**hybrid** analysis of domain interactions involving NtrB and NtrC two-component regulators.

L15 ANSWER 10 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI AmtR, a global repressor in the nitrogen regulation system of Corynebacterium glutamicum.

L15 ANSWER 11 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI p67 isoform of mouse disabled 2 protein acts as a transcriptional activator during the differentiation of F9 cells.

L15 ANSWER 12 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Analysis of Gα protein recognition profiles of angiotensin II receptors using **chimeric** Gα proteins.

L15 ANSWER 13 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI SIP1, a novel zinc finger/homeodomain repressor, interacts with Smad proteins and binds to 5'-CACCT sequences in candidate target genes.

L15 ANSWER 14 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI A new LexA-based genetic system for monitoring and analyzing protein heterodimerization in Escherichia coli.

L15 ANSWER 15 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Investigation of growth hormone releasing hormone receptor structure and activity using yeast expression technologies.

L15 ANSWER 16 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Suppression of grp78 core promoter element-mediated stress induction by the dbpA and dbpB (YB-1) cold shock domain proteins.

L15 ANSWER 17 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Functional domain analysis of interferon consensus sequence binding protein (ICSBP) and its association with interferon regulatory factors.

L15 ANSWER 18 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI PICK1: A perinuclear binding protein and substrate for protein kinase C isolated by the yeast two-**hybrid** system.

L15 ANSWER 19 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.

on STN
TI Aggregation of the intracellular domain of the type 1 tumor necrosis factor receptor defined by the two-**hybrid** system.

L15 ANSWER 20 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Nuclear localization of p185(neu) tyrosine kinase and its association with transcriptional transactivation.

L15 ANSWER 21 OF 21 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Activation and regulation of the insulin receptor kinase.

=> d his

(FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005)

FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 12:03:27 ON 28 JAN 2005
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L2 468164 S SIGNAL (S) TRANSDUCTION
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L4 3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5 1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
L6 1 S L5 NOT L4
L7 14 S (LURIA, SYLV?)/IN,AU
L8 12 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)
L9 10 S L8 NOT L3
L10 21847 S ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)
L11 3786 S L10 (S) (SCREEN? OR IDENTIF? OR SELECT? OR ASSAY?)
L12 69 S L11 (S) (TRANSACTIVAT? OR GAL4 OR GAL-4 OR (("T7" OR "T3" OR
L13 0 S L11 AND L7
L14 21 S L12 AND (FUSION OR HYBRID OR CHIMER?)
L15 21 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)

=> s l12 and ((fusion or hybrid or chimer?) (3n) (gfp or bfp or cfp or yfp or fluorescen? or reporter))
L16 1 L12 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CFP OR YFP OR FLUORESCEN? OR REPORTER))

=> d ibib ab

L16 ANSWER 1 OF 1 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 2001175189 EMBASE
TITLE: Stable luciferase reporter cell lines for signal transduction pathway readout using GAL4 fusion transactivators.
AUTHOR: Hexdall L.; Zheng C.-F.
CORPORATE SOURCE: Dr. C.-F. Zheng, Novasite Pharmaceuticals, 3520 Dunhill Street, San Diego, CA 92121, United States. czheng@novasite.com
SOURCE: BioTechniques, (2001) 30/5 (1134-1140). Refs: 21 ISSN: 0736-6205 CODEN: BTNQDO
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB While **GAL4** fusion activators have been widely used for dissecting **signal transduction** pathways in transient **assays**, there has been surprisingly little reported on utilizing cell lines with stably integrated fusion activators. To avoid problems

with the efficiency and reproducibility inherent to transient transfection, we describe here the generation and characterization of HeLa reporter cell lines, which contain a stably integrated luciferase gene responsive to stably integrated and constitutively expressed **GAL4** -CREB or **GAL4**-Elk1 fusion activators. These cell lines exhibited extremely low basal luciferase expression but robust response to various extracellular stimuli or the expression of signaling molecules that resulted in elevated MAP kinase or PKA activities. This integrated two-component reporter **system** allows one to focus specifically on particular signaling pathway endpoints and the altered **transactivation** activity of either Elk1 or CREB. With the procedures described here, many novel cell-based **assays** can be developed by generating new reporter cell lines with medically important but difficult-to-transfect cell types, and by using different **reporter** genes or different **fusion** **transactivator** genes.

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     (FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 12:03:27 ON 28 JAN 2005
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L2        468164 S SIGNAL (S) TRANSDUCTION
L3             4 S L1 AND L2
L4             3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5             1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
L6             1 S L5 NOT L4
L7            14 S (LURIA, SYLV?)/IN,AU
L8            12 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)
L9            10 S L8 NOT L3
L10        21847 S ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)
L11         3786 S L10 (S) (SCREEN? OR IDENTIF? OR SELECT? OR ASSAY?)
L12           69 S L11 (S) (TRANSACTIVAT? OR GAL4 OR GAL-4 OR (("T7" OR "T3" OR
L13            0 S L11 AND L7
L14           21 S L12 AND (FUSION OR HYBRID OR CHIMER?)
L15           21 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)
L16            1 S L12 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF

=> s l11 and ((fusion or hybrid or chimer?) (3n) (gfp or bfp or cfp or yfp or
fluorescen? or reporter))
L17           31 L11 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CFP
                 OR YFP OR FLUORESCEN? OR REPORTER))

=> s l17 not l14
L18           30 L17 NOT L14

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DUPLICATE PREFERENCE IS 'MEDLINE, EMBASE, BIOSIS, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L18
L19           27 DUPLICATE REMOVE L18 (3 DUPLICATES REMOVED)

=> d ti l19 1-27

L19  ANSWER 1 OF 27  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Bcl10 protein polymerization, signal transduction and phosphorylation for
     identifying regulators of cellular activation

L19  ANSWER 2 OF 27  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Methods for the use of G protein biosensors to identify therapeutic drug
     molecules and molecules binding orphan receptors
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L19 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Chimeric proteins and methods for screening for agonists/antagonists of G protein-coupled high-threshold calcium channels

L19 ANSWER 4 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Real Time Analysis of STAT3 Nucleocytoplasmic Shuttling.

L19 ANSWER 5 OF 27 MEDLINE on STN DUPLICATE 1
TI Bacillus subtilis ResD induces expression of the potential regulatory genes yclJK upon oxygen limitation.

L19 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Screening for modulators of cAMP-protein kinase A signal transduction with transgenic cells expressing membrane-associated labeled protein kinase A

L19 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods for detection of molecular and protein interactions by reporter subunit complementation and its use in functional genomics and drug screening

L19 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for identifying cellular targets using reporter constructs under the control of a enhancer or silencer

L19 ANSWER 9 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Characterization of FGFRL1, a Novel Fibroblast Growth Factor (FGF) Receptor Preferentially Expressed in Skeletal Tissues.

L19 ANSWER 10 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI New thermosensitive delivery vector and its use to enable nisin-controlled gene expression in Lactobacillus gasseri.

L19 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI A two-hybrid assay to measure protein interactions in the Wnt signal transduction pathway and its use screening for drugs

L19 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods for assaying retinoic acid-dependent gene expression for use in the development of treatments for retinoic acid-responsive neoplasms

L19 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Genetically engineered reporter system expressing fluorescent protein for rapid detection of cell surface receptor-ligand binding and uses in high-throughput screening assays

L19 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Large-scale simultaneous methods for identifying genes that are upstream regulators of other genes of interest

L19 ANSWER 15 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Noninvasive imaging of protein-protein interactions in living animals.

L19 ANSWER 16 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Biosynthetic FGF-2 is targeted to non-lipid raft microdomains following translocation to the extracellular surface of CHO cells.

L19 ANSWER 17 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Transient requirement of the PrrA-PrrB two-component system for early

intracellular multiplication of Mycobacterium tuberculosis.

L19 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Fluorescence Imaging of Mobility Shifts: An Expression Cloning Method for Identification of Cell Signaling Targets

L19 ANSWER 19 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Identification and characterization of Magmas, a novel mitochondria-associated protein involved in granulocyte-macrophage colony-stimulating factor signal transduction.

L19 ANSWER 20 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Functional specialization of CK2 isoforms and characterization of isoform-specific binding partners.

L19 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Automated, computerized toxin screening/characterization system based on cell arrays and fluorescent reagents

L19 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for cloning signal transduction intermediates and transcription factor modulators

L19 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods of identifying agents that modulate leptin activity to screen for adiposity regulators

L19 ANSWER 24 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Design of generic biosensors based on green fluorescent proteins with allosteric sites by directed evolution.

L19 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
TI Chimeric integrin in methods and cell lines for identification of regulators of integrin activation and compositions identified thereby

L19 ANSWER 26 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Accumulation of the enterobacterial common antigen lipid II biosynthetic intermediate stimulates degP transcription in Escherichia coli.

L19 ANSWER 27 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI [Molecular mechanisms of inflammation: Interleukin-6-type cytokine signaling through the Jak/STAT pathway].
MOLEKULARE MECHANISMEN DER ENTZUNDUNG: SIGNALTRANSDUKTION VON INTERLEUKIN-6-TYP-ZYTOKINEN UBER DEN JAK/STAT-WEG.

=> d ibib ab l19 1-27

L19 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:756853 CAPLUS
DOCUMENT NUMBER: 141:276273
TITLE: Bcl10 protein polymerization, signal transduction and phosphorylation for identifying regulators of cellular activation
INVENTOR(S): Schaefer, Brian C.; Marrack, Philippa; Kappler, John W.
PATENT ASSIGNEE(S): National Jewish Medical and Research Center, USA
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004078948	A2	20040916	WO 2004-US6970	20040304
W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004265915	A1	20041230	US 2004-795157	20040304
PRIORITY APPLN. INFO.:			US 2003-452312P P	20030304

AB Disclosed are **methods** for evaluating the activation of Bcl10 in a cell in response to a putative stimulus, as well as **methods** for evaluating or **identifying** a regulatory compound which regulates activation of Bcl10-mediated **signal transduction**. These methods utilize the discovery of the activation-dependent formation in a cell of Bcl10 aggregates in a cell.

L19 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:702102 CAPLUS
DOCUMENT NUMBER: 141:202762
TITLE: Methods for the use of G protein biosensors to identify therapeutic drug molecules and molecules binding orphan receptors
INVENTOR(S): Gautam, Narasimhan; Azpiazu, Inaki
PATENT ASSIGNEE(S): Washington University In St. Louis, USA
SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004072608	A2	20040826	WO 2004-US2991	20040204
W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004224361	A1	20041111	US 2004-771897	20040204
PRIORITY APPLN. INFO.:			US 2003-445113P P	20030205
			US 2003-493952P P	20030808

AB G protein biosensors comprising mammalian G protein subunits fused to fluorescent proteins emitting a FRET signal expressed in living intact

functional cells. The intensity of the FRET signal is strongly responsive to the activation state of the biosensors. The biosensors respond reproducibly to agonist and antagonist drug mols. specific for G protein coupled receptors. The biosensors have utility in identifying and classifying candidate therapeutic drugs as to their therapeutic value.

L19 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:515342 CAPLUS
DOCUMENT NUMBER: 141:67837
TITLE: Chimeric proteins and methods for screening for agonists/antagonists of G protein-coupled high-threshold calcium channels
INVENTOR(S): De Waard, Michel; Dupuis, Alain; Grunwald, Didier; Sandoz, Guillaume
PATENT ASSIGNEE(S): Commissariat A L'energie Atomique, Fr.; Institut National De La Sante Et De La Recherche Medicale Inserm
SOURCE: Fr. Demande, 59 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2849041	A1	20040625	FR 2002-16576	20021223
WO 2004058977	A1	20040715	WO 2003-FR3860	20031222

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: FR 2002-16576 A 20021223
AB Chimeric proteins derived from a G protein-coupled high-threshold calcium channels are disclosed. These chimeric proteins comprise subunit β, or a BID domain-containing subfragment of subnit β, fused to a subfragment of subunit α1 containing the AID domain. The chimeric proteins do not bind to the α subunit because of intramol. interaction between the AID and BID domains. However, in the presence of the β or βγ subunits of G proteins, the intramol. interaction is inhibited and the chimera can then bind to subunit α. Fluorophore-labeled chimeras may be used in screening for agonists and antagonists of the calcium channel, or for studying signal transduction.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 4 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 2004207975 EMBASE
TITLE: Real Time Analysis of STAT3 Nucleocytoplasmic Shuttling.
AUTHOR: Pranada A.L.; Metz S.; Herrmann A.; Heinrich P.C.; Muller-Newen G.
CORPORATE SOURCE: G. Muller-Newen, Institut fur Biochemie, Univ. Klin. R.-Westfal. Tech. H. A., Pauwelsstrasse 30, Aachen 52057, Germany. mueller-newen@rwth-aachen.de
SOURCE: Journal of Biological Chemistry, (9 Apr 2004) 279/15 (15114-15123).
Refs: 38

ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The transcription factor STAT3 is most important for the **signal transduction** of interleukin-6 and related cytokines. Upon stimulation cytoplasmic STAT3 is phosphorylated at tyrosine 705, translocates into the nucleus, and induces target genes. Notably, STAT proteins are also detectable in the nuclei of unstimulated cells. In this report we introduce a new **method** for the real time analysis of STAT3 nucleocytoplasmic shuttling in living cells which is based on the recently established fluorescence localization after photobleaching (FLAP) approach. STAT3 was C-terminally fused with the cyan (CFP) and yellow (YFP) variants of the green fluorescent protein. In the resulting STAT3-**CFP-YFP** (STAT3-CY) **fusion** protein the **YFP** can be **selectively** bleached using the 514-nm laser of a confocal microscope. This setting allows studies on the dynamics of STAT3 nucleocytoplasmic transport by monitoring the subcellular distribution of fluorescently labeled and **selectively** bleached STAT3-CY. By this means we demonstrate that STAT3-CY shuttles continuously between the cytosol and the nucleus in unstimulated cells. This constitutive shuttling does not depend on the phosphorylation of tyrosine 705 because a STAT3(Y705F)-CY mutant shuttles to the same extent as STAT3-CY. Experiments with deletion mutants reveal that the N-terminal moiety of STAT3 is essential for shuttling. Further studies suggest that a decrease in STAT3 nuclear export contributes to the nuclear accumulation of STAT3 in response to cytokine stimulation. The new approach presented in this study is generally applicable to any protein of interest for analyzing nucleocytoplasmic transport mechanisms in real time.

L19 ANSWER 5 OF 27 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2004465385 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15375128
TITLE: Bacillus subtilis ResD induces expression of the potential regulatory genes yclJK upon oxygen limitation.
AUTHOR: Hartig Elisabeth; Geng Hao; Hartmann Anja; Hubacek Angela; Munch Richard; Ye Rick W; Jahn Dieter; Nakano Michiko M
CORPORATE SOURCE: Institute of Microbiology, University of Braunschweig, Braunschweig, Germany.. e.haertig@tu-bs.de
SOURCE: Journal of bacteriology, (2004 Oct) 186 (19) 6477-84. Journal code: 2985120R. ISSN: 0021-9193.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200410
ENTRY DATE: Entered STN: 20040921
Last Updated on STN: 20041020
Entered Medline: 20041019
AB Transcription of the yclJK operon, which encodes a potential two-component regulatory system, is activated in response to oxygen limitation in Bacillus subtilis. Northern blot analysis and **assays** of yclJ-lacZ **reporter** gene **fusion** activity revealed that the anaerobic induction is dependent on another two-component **signal transduction system** encoded by resDE.
ResDE was previously shown to be required for the induction of anaerobic energy metabolism. Electrophoretic mobility shift assays and DNase I footprinting experiments showed that the response regulator ResD binds specifically to the yclJK regulatory region upstream of the transcriptional start site. In vitro transcription experiments demonstrated that ResD is sufficient to activate yclJ transcription. The phosphorylation of ResD by its sensor kinase, ResE, highly stimulates its

activity as a transcriptional activator. Multiple nucleotide substitutions in the ResD binding regions of the yclJ promoter abolished ResD binding in vitro and prevented the anaerobic induction of yclJK in vivo. A weight matrix for the ResD binding site was defined by a bioinformatic approach. The results obtained suggest the existence of a new branch of the complex regulatory system employed for the adaptation of B. subtilis to anaerobic growth conditions.

L19 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:818617 CAPLUS
DOCUMENT NUMBER: 139:319657
TITLE: Screening for modulators of cAMP-protein kinase A signal transduction with transgenic cells expressing membrane-associated labeled protein kinase A
INVENTOR(S): Furger, Christophe; Lorenzo, Corinne
PATENT ASSIGNEE(S): Novaleads, Fr.
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003085405	A1	20031016	WO 2003-FR1145	20030410
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2838453	A1	20031017	FR 2002-4537	20020411
FR 2838453	B1	20040716		
EP 1493035	A1	20050105	EP 2003-745845	20030410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.: FR 2002-4537 A 20020411
WO 2003-FR1145 W 20030410

AB The invention concerns a **method** for **selecting** biol. active agents whereof the activity is expressed by a modulation of the **transduction** path of the cAMP/PKA **signal**. Said invention is based on the use of a cellular system comprising at least a genetically modified cell wherein are expressed a catalytic PKA subunit marked with a luminescent group, and a PKA regulator subunit translocated to the cell membrane. Thus, the invention enables reliable, simple and rapid detection of the dissociated or complexed condition of the PKA through observation of the luminescent marking of a cell membrane or of the cytoplasm of the sensitive cell. The invention also concerns a cellular system adapted to the implementation of such a selection method. Thus, transgenic HEK293 cells expressing RIIα-CAAX and **GFP** -Cα **fusion** protein, when treated with forskolin or cholera toxin, exhibited a decreased membrane-associated fluorescence and increased cytosolic fluorescence due to cAMP-induced dissociation of R and C subunits. Alternatively, COS7 cells expressing the same protein kinase A subunits, and containing dioctadecyl-1,1'-tetramethyl-3,3,3',3'-indocarbocyanine (DiI) in the cell membrane, were treated with isoproterenol. The resulting increased intracellular cAMP caused R-C dissociation, increased fluorescence of GFP-Cα at 510 nm, and decreased fluorescence of DiI as 565 nm.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:551735 CAPLUS
DOCUMENT NUMBER: 139:112705
TITLE: Methods for detection of molecular and protein interactions by reporter subunit complementation and its use in functional genomics and drug screening
INVENTOR(S): Blau, Helen M.; Balint, Robert F.; Wehrman, Thomas S.; Her, Jeng-horng
PATENT ASSIGNEE(S): The Board of Trustees of the Leland Stanford Junior University, USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003058197	A2	20030717	WO 2002-US41587	20021226
WO 2003058197	A3	20040122		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003175836	A1	20030918	US 2002-330811	20021226
PRIORITY APPLN. INFO.:			US 2001-344757P P	20011226

AB Methods and compns. for detecting mol. interactions, particularly, protein-protein interactions, using at least two inactive, weakly-complementing ss-lactamase fragments are provided. The invention allows detection of such interactions in eukaryotic and mammalian cells, in situ or in vitro. Detection of mol. interactions in mammalian cells is not limited to the nuclear compartment, but can be accomplished in the cytoplasm, cell surface, organelles, or between these entities. Methods provided utilize novel compns. comprising fusion proteins between mols. of interest and inactive, weakly-complementing-ss-lactamase fragments. Association of the mols. of interest brings the corresponding complementary ss-lactamase fragments into close enough proximity for complementation to occur and ss-lactamase activity to be observed The invention is useful in the study of protein-protein interactions, functional genomics, agonist and antagonist screening and drug discovery.

L19 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:892334 CAPLUS
DOCUMENT NUMBER: 139:359906
TITLE: Method for identifying cellular targets using reporter constructs under the control of a enhancer or silencer
INVENTOR(S): Erives, Albert J.; Starr, D. Barry
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003211481	A1	20031113	US 2002-142370	20020508
PRIORITY APPLN. INFO.:			US 2002-142370	20020508

AB The present invention is directed to nucleic acid constructs and their use in identifying cellular factors that function in various cellular processes involving gene expression. Such factors include those that participate in signaling pathways to regulate cellular gene expression. These factors may be the targets of known therapeutic agents, novel targets for a test compound, or amenable to altered expression to modulate cellular processes. In a particular embodiment, luciferase reporter construct containing luciferase gene under the control of a PSA regulatory module operably linked to a Simian Virus 40 (SV40) basal promoter, IRES and hygromycin resistance is co-expressed with vectors expressing a prostate cDNA expression library in an androgen dependent prostate cell line for screening pos. or neg. regulatory mols. in the bicalutamide (androgen receptor antagonist). In another particular embodiment, a HSV thymidylate kinase gene can be used to replace hygromycin resistance gene or expressed from a second "control" construct under the control of a basal SV40 promoter, and latter setting is useful for the screening of cDNAs encoding other factors, such as a membrane associated transporter that removes bicalutamide from the cell. In further embodiments, the silencer can be used to replace the PSA regulatory module.

L19 ANSWER 9 OF 27 EMBASE
on STN

ACCESSION NUMBER: 2003517914 EMBASE
TITLE: Characterization of FGFRL1, a Novel Fibroblast Growth Factor (FGF) Receptor Preferentially Expressed in Skeletal Tissues.
AUTHOR: Trueb B.; Zhuang L.; Taeschler S.; Wiedemann M.
CORPORATE SOURCE: B. Trueb, ITI Research Inst., University of Bern, P. O. Box 54, CH-3010 Bern, Switzerland. beat.trueb@iti.unibe.ch
SOURCE: Journal of Biological Chemistry, (5 Sep 2003) 278/36 (33857-33865).
Refs: 27
ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Clones for a novel transmembrane receptor termed FGFRL1 were isolated from a subtracted, cartilage-specific cDNA library prepared from chicken sterna. Homologous sequences were **identified** in other vertebrates, including man, mouse, rat and fish, but not in invertebrates such as Caenorhabditis elegans and Drosophila. FGFRL1 was expressed preferentially in skeletal tissues as demonstrated by Northern blotting and in situ hybridization. Small amounts of the FGFRL1 MRNA were also detected in other tissues such as skeletal muscle and heart. The novel protein contained three extracellular Ig-like domains that were related to the members of the fibroblast growth factor (FGF) receptor family. However, it lacked the intracellular protein tyrosine kinase domain required for **signal transduction** by transphosphorylation. When expressed in cultured cells as a **fusion** protein with green **fluorescent** protein, FGFRL1 was specifically localized to the plasma membrane where it might interact with FGF ligands. Recombinant FGFRL1 protein was produced in a baculovirus **system** with intact disulfide bonds. Similar to FGF receptors, the expressed protein interacted specifically with heparin and with FGF2. When overexpressed in MG-63 osteosarcoma cells, the novel receptor had a negative effect on cell proliferation. Taken together our data are consistent with the view that FGFRL1 acts as a decoy receptor for FGF ligands.

L19 ANSWER 10 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2003113382 EMBASE
TITLE: New thermosensitive delivery vector and its use to enable nisin-controlled gene expression in Lactobacillus gasseri.
AUTHOR: Neu T.; Henrich B.
CORPORATE SOURCE: B. Henrich, Abteilung Mikrobiologie, Fachbereich Biologie, Universitat Kaiserslautern, Postfach 3049, D-67653 Kaiserslautern, Germany. henrich@rhrk.uni-kl.de
SOURCE: Applied and Environmental Microbiology, (1 Mar 2003) 69/3 (1377-1382).
Refs: 33
ISSN: 0099-2240 CODEN: AEMIDF
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Derivatives of a cryptic plasmid from Lactobacillus curvatus showed temperature-sensitive replication in thermophilic lactobacilli. The thermosensitive replicon was used to construct the new delivery vector pTN1, which allows site-specific replacement of chromosomal DNA sequences. pTN1 carries an erythromycin resistance marker suitable for **selection** of single-copy integrants and replicates readily at 35°C, whereas replication is efficiently shut down at 42°C. To demonstrate the functionality of pTN1, the **signal transduction** genes (nisRK) of the nisin-controlled expression **system** were integrated downstream of the pepN gene into the chromosome of Lactobacillus gasseri. In the resulting strain, UKLbg1, expression of nisRK was likely driven by cotranscription with pepN and enabled nisin-dependent induction of a **fusion** of a **reporter** gene (pepl) to the nisA promoter. The induction rates were correlated with the amount of nisin used, and maximum pepI expression was achieved with nisin concentrations (above 25 ng/ml) at which growth of the bacteria was already inhibited.

L19 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:429080 CAPLUS
DOCUMENT NUMBER: 137:15771
TITLE: A two-hybrid assay to measure protein interactions in the Wnt signal transduction pathway and its use screening for drugs
INVENTOR(S): Bumcrot, David
PATENT ASSIGNEE(S): Curis, Inc., USA
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044378	A2	20020606	WO 2001-US44862	20011128
WO 2002044378	A3	20030306		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002017970	A5	20020611	AU 2002-17970	20011128
PRIORITY APPLN. INFO.:			US 2000-253687P	P 20001128
			US 2001-264579P	P 20010126
			WO 2001-US44862	W 20011128

AB The present invention relates to methods for monitoring the level of activity of the Wnt signaling pathway and provides means to identify factors capable of modulating Wnt signaling. Specifically, the use of a two hybrid system to study interactions and screen for modulators is demonstrated. The present invention further concerns nucleic acid constructs, chimeric proteins and cell lines for carrying out the methods of the invention. Use of a GAL4 two hybrid assay to examine the interactions between β-catenin and T-cell factor is demonstrated using HEK 293 cells as host. The dose-dependent regulation of the interaction by lithium chloride is demonstrated. Four candidate drugs were tested in this assay.

L19 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2002:391920 CAPLUS
DOCUMENT NUMBER:	136:399998
TITLE:	Methods for assaying retinoic acid-dependent gene expression for use in the development of treatments for retinoic acid-responsive neoplasms
INVENTOR(S):	Kamb, Carl Alexander; Richards, Burt Timothy; Karpilow, Jon
PATENT ASSIGNEE(S):	Deltagen Proteomics, Inc., USA
SOURCE:	PCT Int. Appl., 131 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	11
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002040719	A2	20020523	WO 2001-US44039	20011117
WO 2002040719	A3	20031106		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2429515	AA	20020523	CA 2001-2429515	20011117
AU 2002019851	A5	20020527	AU 2002-19851	20011117
EP 1407045	A2	20040414	EP 2001-996629	20011117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			US 2000-249468P	P 20001117
			WO 2001-US44039	W 20011117

AB Methods for assaying a cellular pathway, and more particularly a retinoic acid-related pathway, are disclosed. The assays of the invention utilize particular host cells with desired retinoic acid pathway elements, and results in the identification of biol. active trans-dominant phenotypic probes and cellular targets and fragments, variants and mimetics thereof. A green fluorescent protein reporter gene was placed under control of a retinoic acid-responsive element and introduced into the retinoic acid responsive melanoma line WM35. Transformed cell lines showing the strongest induction were selected for further use in characterization of effectors of retinoic acid-dependent gene expression. The use of a

C-terminal deletion derivative of the retinoic acid receptor to block retinoic acid induction of gene expression is demonstrated. A method of using a cDNA library encoding fusion proteins of a non-fluorescent derivative of green fluorescent protein to screen for inhibitors or inducers of the pathway are described. Cells showing induction, or failure to induce, can be separated by fluorescence-activated cell sorting. Idetiofication of a number of candidates and characterization of their interaction with the receptor using two-hybrid assays is described.

L19 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:185300 CAPLUS
DOCUMENT NUMBER: 136:227910
TITLE: Genetically engineered reporter system expressing fluorescent protein for rapid detection of cell surface receptor-ligand binding and uses in high-throughput screening assays
INVENTOR(S): Owman, Christer S. O.; Olde, Bjorn A.; Kotarsky, Knut
PATENT ASSIGNEE(S): Swed.
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020749	A2	20020314	WO 2001-IB1938	20010906
WO 2002020749	A3	20030313		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2421858	AA	20020314	CA 2001-2421858	20010906
AU 2001094120	A5	20020322	AU 2001-94120	20010906
US 2002150912	A1	20021017	US 2001-946334	20010906
EP 1315821	A2	20030604	EP 2001-974607	20010906
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004508042	T2	20040318	JP 2002-525756	20010906

PRIORITY APPLN. INFO.:
US 2000-230705P P 20000907
WO 2001-IB1938 W 20010906

AB The present invention provides **chimeric reporter** constructs with transcription control element to control the expression of the **chimeric reporter** gene, recombinant cells containing the reporter constructs, and assays utilizing the recombinant cells for detection of substances that interact with cell surface receptors, such as those of the G-protein coupled receptor family. In particular, the invention discloses that the **reporter** constructs comprising a **chimeric reporter** gene, which comprises indicator proteins such as fluorescent protein or luciferase protein, and is operably linked to at least one transcription control element, including activation or repression, that the expression of reporter gene can be easily detected. The reporter constructs and recombinant cells are particularly well suited for high-throughput screening assays, and rapid visual detection of interaction between a substance and a cell surface receptor, by using fluorescence-activated cell sorting (FACS), or luminometry.

L19 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:978585 CAPLUS
DOCUMENT NUMBER: 138:50817
TITLE: Large-scale simultaneous methods for identifying genes that are upstream regulators of other genes of interest
INVENTOR(S): Minc-Golomb, Dahlia
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002197641	A1	20021226	US 2002-175644	20020620
WO 2003000932	A1	20030103	WO 2002-US19547	20020620

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW

PRIORITY APPLN. INFO.: US 2001-299691P P 20010620

AB The invention provides a method for identifying genes that regulate the expression of other genes by placing a sample containing genetic material in a section of a grid, silencing expression of at least one predetd. gene in the sample, grown in the section of the grid, so that in each section of the grid at least one predetd. gene is silenced, determining the amount of genetic material of interest present in each section of the grid, and identifying the sections of the grid in which the silencing was maximal thereby identifying genes that regulate the expression of other genes and the genes of interest identified by the method. Specifically, the invention claims methods for silencing gene expression by transfection with oligonucleotides of double-stranded RNA. In addition, methods of the invention are claimed for determining the effect of various compds., including cofactors, analogs, hormones, and drugs, on the upstream regulated genes of interest or on transcription. Further, methods of the invention are claimed for use with a hypoxia-induced factor gene and for use with genes involved in apoptosis, cancer, energy metabolism, signal transduction, and other conditions. Also provided by the present invention is a kit for performing the above method, the kit having a grid for holding a sample, inactivating agents for inactivating genetic material in the sample, and a measuring device for measuring the inactivation of the genetic material. The invention further claims methods for testing different conditions in parallel, such as multiwell plates, microarrays, and slides, and methods for measuring differences in gene expression, such as reporter systems that produce calorimetric, fluorimetric or radioactive signals and their measuring devices. An example of the invention is cotransfection of an array of HeLa cells with an inducible nitric oxide synthase (iNOS) gene promoter-GFP reporter and an array of siRNAs (short interfering RNA). The siRNA array contains sequences from human genes that are constitutively expressed in HeLa cells and each cotransfection is with a different siRNA. The cells are exposed to lipopolysaccharide and recombinant interferon-γ to induce the iNOS gene promoter and wells that do not show fluorescence are identified. The iNOS promoter was silenced in wells containing siRNA for mitogen activator kinase 1 (MAPK1,p38), thereby identifying MAPK1 as a upstream regulator. Similar examples are given for identification of upstream regulators of hypoxia-induced factor in endothelial cells and identification of factors that regulate levels of

the phosphorylated form (phospho-1457) of BRCA1. There is also a brief description of two-step silencing, cytoplasmic myosins followed by a specific myosin, for identification of genes involved in β-adrenergic receptor signaling or cell proliferation.

L19 ANSWER 15 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2002180371 EMBASE
TITLE: Noninvasive imaging of protein-protein interactions in living animals.
AUTHOR: Luker G.D.; Sharma V.; Pica C.M.; Dahlheimer J.L.; Li W.; Ochesky J.; Ryan C.E.; Piwnica-Worms H.; Piwnica-Worms D.
CORPORATE SOURCE: D. Piwnica-Worms, Molecular Imaging Center, Mallinckrodt Institute of Radiology, Washington Univ. School of Medicine, 510 South Kingshighway Boulevard, St. Louis, MO 63110, United States. piwnica-wormsd@mir.wustl.edu
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (14 May 2002) 99/10 (6961-6966). Refs: 30
ISSN: 0027-8424 CODEN: PNASA6
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Protein-protein interactions control transcription, cell division, and cell proliferation as well as mediate **signal transduction**, oncogenic transformation, and regulation of cell death. Although a variety of **methods** have been used to investigate protein interactions in vitro and in cultured cells, none can analyze these interactions in intact, living animals. To enable noninvasive molecular imaging of protein-protein interactions in vivo by positron-emission tomography and fluorescence imaging, we engineered a **fusion reporter** gene comprising a mutant herpes simplex virus 1 thymidine kinase and green fluorescent protein for readout of a tetracycline-inducible, two-hybrid **system** in vivo. By using micro-positron-emission tomography, interactions between p53 tumor suppressor and the large T antigen of simian virus 40 were visualized in tumor xenografts of HeLa cells stably transfected with the imaging constructs. Imaging protein-binding partners in vivo will enable functional proteomics in whole animals and provide a tool for **screening** compounds targeted to specific protein-protein interactions in living animals.

L19 ANSWER 16 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2002351562 EMBASE
TITLE: Biosynthetic FGF-2 is targeted to non-lipid raft microdomains following translocation to the extracellular surface of CHO cells.
AUTHOR: Engling A.; Backhaus R.; Stegmayer C.; Zehe C.; Seelenmeyer C.; Kehlenbach A.; Schwappach B.; Wegehingel S.; Nickel W.
CORPORATE SOURCE: W. Nickel, Biochemie-Zentrum Heidelberg BZH, Im Neuenheimer Feld 328, 69120 Heidelberg, Germany. walter.nickel@urz.uni-heidelberg.de
SOURCE: Journal of Cell Science, (15 Sep 2002) 115/18 (3619-3631). Refs: 49
ISSN: 0021-9533 CODEN: JNCSAI
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Basic fibroblast growth factor (FGF-2) is a secretory protein that lacks a

signal peptide. Consistently, FGF-2 has been shown to be secreted by an ER-Golgi-independent mechanism; however, the machinery mediating this process remains to be established at the molecular level. Here we introduce a novel experimental **system** based on flow cytometry that allows the quantitative assessment of non-classical FGF-2 secretion in living cells. Stable cell lines have been created by retroviral **transduction** that express various kinds of FGF-2-**GFP** **fusion** proteins in a doxicyclin-dependent manner. Following induction of protein expression, biosynthetic FGF-2-GFP is shown to translocate to the outer surface of the plasma membrane as determined by both fluorescence activated cell sorting (FACS) and confocal microscopy. Both N- and C-terminal GFP tagging of FGF-2 is compatible with FGF-2 export, which is shown to occur in a controlled fashion rather than through unspecific release. The experimental **system** described has strong implications for the **identification** of both FGF-2 secretion inhibitors and molecular components involved in FGF-2 secretion. In the second part of this study we made use of the FGF-2 export **system** described to analyze the fate of biosynthetic FGF-2-GFP following export to the extracellular space. We find that secreted FGF-2 fusion proteins accumulate in large heparan sulfate proteoglycan (HSPG)-containing protein clusters on the extracellular surface of the plasma membrane. These microdomains are shown to be distinct from caveolae-like lipid rafts known to play a role in FGF-2-mediated **signal transduction**. Since CHO cells lack FGF high-affinity receptors (FGFRs), it can be concluded that FGFRs mediate the targeting of FGF-2 to lipid rafts. Consistently, FGF-2-GFP-secreting CHO cells do not exhibit increased proliferation activity. Externalization and deposition of biosynthetic FGF-2 in HSPG-containing protein clusters are independent processes, as a soluble secreted intermediate was demonstrated. The balance between intracellular FGF-2 and HSPG-bound secreted FGF-2 is shown not to be controlled by the availability of cell surface HSPGs, indicating that the FGF-2 secretion machinery itself is rate-limiting.

L19 ANSWER 17 OF 27 EMBASE
on STN

ACCESSION NUMBER: 2002146160 EMBASE
TITLE: Transient requirement of the PrrA-PrrB two-component system for early intracellular multiplication of Mycobacterium tuberculosis.
AUTHOR: Ewann F.; Jackson M.; Pethe K.; Cooper A.; Mielcarek N.; Ensergueix D.; Gicquel B.; Locht C.; Supply P.
CORPORATE SOURCE: C. Locht, Lab. des Mecanismes Moleculaires, INSERM U447, Institut Pasteur de Lille, 1, rue du Prof. Calmette, F-59019 Lille Cedex, France. camille.locht@pasteur-lille.fr
SOURCE: Infection and Immunity, (2002) 70/5 (2256-2263).
Refs: 30
ISSN: 0019-9567 CODEN: INFIBR
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Adaptive regulation of gene expression in response to environmental changes is a general property of bacterial pathogens. By **screening** an ordered transposon mutagenesis library of Mycobacterium tuberculosis, we have **identified** three mutants containing a transposon in the coding sequence or in the 5' regions of genes coding for two-component **signal transduction** systems (trcS, regX3, prrA). The intracellular multiplication capacity of the three mutants was investigated in mouse bone marrow-derived macrophages. Only the prrA mutant showed a defect in intracellular growth during the early phase of infection, and this defect was fully reverted when the mutant was complemented with prrA-prrB wild-type copies. The mutant phenotype was

transient, as after 1 week this strain recovered full growth capacity to reach levels similar to that of the wild type at day 9. Moreover, a transient induction of prrA promoter activity was observed during the initial phase of macrophage infection, as shown by a prrA promoter-**gfp fusion** in M. bovis BCG infecting the mouse macrophages. The concordant transience of the prrA mutant phenotype and prrA promoter activity indicates that the PrrA-PrrB two-component **system** is involved in the environmental adaptation of M. tuberculosis, specifically in an early phase of the intracellular growth, and that, similar to other facultative intracellular parasites, M. tuberculosis can use genes temporarily required at different stages in the course of macrophage infection.

L19 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:933265 CAPLUS
DOCUMENT NUMBER: 139:114004
TITLE: Fluorescence Imaging of Mobility Shifts: An Expression Cloning Method for Identification of Cell Signaling Targets
AUTHOR(S): Mandell, James W.; Manabe, Ri-ichiroh; Horwitz, Alan F.; Baumgart, Joel P.
CORPORATE SOURCE: Neuroscience Graduate Program, Department of Pathology, University of Virginia, Charlottesville, VA, USA
SOURCE: Laboratory Investigation (2002), 82(12), 1631-1636
CODEN: LAINAW; ISSN: 0023-6837
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB There is a need for a simple global approach to identify signaling targets that are posttranslationally modified in response to physiol. or pathol. stimuli within living cells. Reported here is a simple method, fluorescence imaging of mobility shifts (FIMS), which relies on in-gel detection of cell-expressed green **fluorescent** protein **fusion** proteins undergoing electrophoretic mobility shifts. This detection method is applied to a small pool cDNA library screening protocol. The readout is essentially a differential display of posttranslational modifications. Unlike biochem. approaches to identifying signaling targets, the screen is performed in living cells using standard methods for transient transfection. This enables detection of intracellular targets modified in response to either molecularly defined stimuli, such as growth factors or drugs, or complex pathol. stimuli, such as oxidative stress or hypoglycemia. FIMS is rapid, sensitive, inexpensive, and nonradioactive and easily adapted to automated high throughput methods, including capillary electrophoresis. The technique is sufficiently sensitive to easily detect fluorescent proteins expressed in a single well in 384-well format. FIMS is applicable to traditional cDNA library screening, but the method will be especially attractive for screening preselected collections of autofluorescent fusion proteins. A bonus of the technique is that examination of transfected cells by fluorescence microscopy provides immediate information about intracellular localization and stimulus-induced translocation of putative targets. We illustrate the utility of the technique with pilot screens for apoptotic and mitogenic targets modified by staurosporine and serum stimulation, resp.
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 19 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 2002002090 EMBASE
TITLE: Identification and characterization of Magmas, a novel mitochondria-associated protein involved in granulocyte-macrophage colony-stimulating factor signal transduction.

AUTHOR: Jubinsky P.T.; Messer A.; Bender J.; Morris R.E.; Ciraolo G.M.; Witte D.P.; Hawley R.G.; Short M.K.
CORPORATE SOURCE: Dr. P.T. Jubinsky, Division of Hematology/Oncology, Children's Hospital Medical Center, 3333 Burnet Avenue, Cincinnati, OH 45229-3039, United States. jubip0@chmcc.org
SOURCE: Experimental Hematology, (2001) 29/12 (1392-1402).
Refs: 54
ISSN: 0301-472X CODEN: EXHEBH
PUBLISHER IDENT.: S 0301-472X(01)00749-4
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 022 Human Genetics
025 Hematology
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB ObjectiveThe aim of this study was to **identify** granulocyte-macrophage colony-stimulating factor (GM-CSF) responsive genes.Materials and **MethodsPotential** GM-CSF responsive genes were **identified** by comparing the mRNA expression pattern of the murine myeloid cell line PGMD1 grown in either interleukin-3 (IL-3) or GM-CSF by differential display. Human and murine cDNA clones of one of the bands having increased expression in GM-CSF were isolated. mRNA expression of the gene was examined by Northern blot. Immunohistochemistry and studies with a green **fluorescent fusion** protein were used to determine its intracellular location. Growth factor-stimulated proliferation of PGMD1 cells transfected with constitutively expressed sense and anti-sense cDNA constructs of the gene was measured by (3)H-thymidine incorporation.ResultsA gene, named Magmas (mitochondria-associated granulocyte macrophage CSF signaling molecule), was shown to be rapidly induced when cells were switched from IL-3 to GM-CSF. Analysis of the amino acid sequence of Magmas showed it contained a mitochondrial **signal** peptide, but not any other known functional domains. The human and murine clones encode nearly identical 13-kDa proteins that localized to the mitochondria. Magmas mRNA expression was observed in all tissues examined. PGMD1 cells that overexpressed Magmas proliferated similarly to untransfected cells when cultured in IL-3 or GM-CSF. In contrast, cells with reduced protein levels grew normally in IL-3, but had impaired proliferation in GM-CSF.ConclusionMagmas is a mitochondrial protein involved in GM-CSF **signal transduction**. Copyright .COPYRGT. 2001 International Society for Experimental Hematology.

ACCESSION NUMBER: 2002020742 EMBASE
TITLE: Functional specialization of CK2 isoforms and characterization of isoform-specific binding partners.
AUTHOR: Litchfield D.W.; Bosc D.G.; Canton D.A.; Saulnier R.B.; Vilk G.; Zhang C.
CORPORATE SOURCE: D.W. Litchfield, Department of Biochemistry, University of Western Ontario, London, Ont. N6A 5C1, Canada. litchfi@uwo.ca
SOURCE: Molecular and Cellular Biochemistry, (2001) 227/1-2 (21-29).
Refs: 59
ISSN: 0300-8177 CODEN: MCBIB8
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
029 Clinical Biochemistry
LANGUAGE: English

SUMMARY LANGUAGE: English

AB In mammals, protein kinase CK2 has two isozymic forms of its catalytic subunit, designated CK2α and CK2α'. CK2α and CK2α' exhibit extensive similarity within their catalytic domains but have completely unrelated C-terminal sequences. To systematically examine the cellular functions of each CK2 isoform in mammalian cells, we have generated human osteosarcoma U2-OS cell lines with the expression of active or inactive versions of each CK2 isoform under the control of an inducible promoter [22]. Examination of these cell lines provides evidence for functional specialization of CK2 isoforms at the cellular level in mammals with indications that CK2α' is involved in the control of proliferation and/or cell survival. To understand the molecular basis for functional differences between CK2α and CK2α', we have undertaken studies to **identify** proteins that interact specifically with each isoform of CK2 and could contribute to the regulation of their independent functions. A novel pleckstrin-homology domain containing protein, designated CK2-interacting protein 1 (i.e. CKIP-1) was isolated using the yeast two hybrid **system** as a protein that interacts with CK2α but not CK2α' [23]. When expressed in cells as a **fusion** with green **fluorescent** protein, CKIP-1 localizes to the cell membrane and to the nucleus. In this study, we present evidence from deletion analysis of CKIP-1 suggesting that a C-terminal region containing a putative leucine zipper has a role in regulating its nuclear localization. Collectively, our data supports a model whereby CKIP-1 is a non-enzymatic regulator of CK2α that regulates the cellular functions of CK2α by targeting or anchoring CK2α to specific cellular localization or by functioning as an adapter to integrate CK2α-mediated signaling events with components of other **signal transduction** pathways.

L19 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:608992 CAPLUS
DOCUMENT NUMBER: 133:187932
TITLE: Automated, computerized toxin screening/characterization system based on cell arrays and fluorescent reagents
INVENTOR(S): Giuliano, Kenneth A.; Kapur, Ravi
PATENT ASSIGNEE(S): Cellomics, Inc., USA
SOURCE: PCT Int. Appl., 350 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 21
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050872	A2	20000831	WO 2000-US4794	20000225
WO 2000050872	A3	20010308		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6759206	B1	20040706	US 1999-352171	19990712
CA 2362117	AA	20000831	CA 2000-2362117	20000225
EP 1155304	A2	20011121	EP 2000-914701	20000225
EP 1155304	B1	20030507		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

AT 239907	E	20030515	AT 2000-914701	20000225
JP 2003526772	T2	20030909	JP 2000-601420	20000225
JP 3576491	B2	20041013		
US 2003204316	A1	20031030	US 2003-430534	20030506

PRIORITY APPLN. INFO.:

US 1999-122152P	P	19990226
US 1999-123399P	P	19990308
US 1999-352171	A	19990712
US 1997-810983	A2	19970227
US 1998-31271	B2	19980227
US 1998-92671P	P	19980713
WO 2000-US4794	W	20000225
US 2000-650937	A1	20000829

AB The present invention provides systems, methods, screens, reagents and kits for optical system anal. of cells to rapidly determine the distribution, environment, or activity of fluorescently labeled reporter mols. in cells for the purpose of screening large nos. of compds. for those that specifically affect particular biol. functions. The invention provides systems, methods, and screens that combine high throughput screening and high content screening that significantly improve target validation and candidate optimization by combining many cell screening formats with fluorescence-based mol. reagents and computer-based feature extraction, data anal., and automation, resulting in increased quantity and speed of data collection, shortened cycle times, and, ultimately, faster evaluation of promising drug candidates. For example, the effect of interleukin-1 on translocation of transcription factor NF-κB from the cytoplasm to the nucleus was analyzed using 3T3 cells in the wells of a 96-well microtiter plate. The rows of well were titered with the interleukin-1. The cells were then fixed and stained with fluorescein-labeled antibody to NF-κB and with Hoechst 33423, a DNA-specific fluorophore. Computerized fluorescent image anal. was used to compare nuclear and cytoplasm fluorescence. The decrease in this ratio was strongly correlated with concentration of interleukin-1. A number of more sophisticated assays are described.

L19 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2000:608939 CAPLUS
DOCUMENT NUMBER:	133:203800
TITLE:	Method for cloning signal transduction intermediates and transcription factor modulators
INVENTOR(S):	Seed, Brian; Ting, Adrian
PATENT ASSIGNEE(S):	The General Hospital Corporation, USA
SOURCE:	PCT Int. Appl., 53 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050633	A1	20000831	WO 2000-US4925	20000224
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1157126	A1	20011128	EP 2000-911997	20000224
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002541779	T2	20021210	JP 2000-601196	20000224

PRIORITY APPLN. INFO.: US 1999-121485P P 19990224
WO 2000-US4925 W 20000224

AB The invention features a method of identifying a polypeptide which increases gene expression from a promoter. The method comprises contacting a library of polypeptides with a cell that expresses a recombinant anti-cell death gene (e.g., bcl, IAP, crmA) and that contains a reporter gene (e.g., green fluorescent protein) operably linked to a promoter. Expression of the reporter gene is thereby increased if the library includes a polypeptide which increases gene expression from the promoter. If the reporter gene expression is increased in the cell as a result of contact with the polypeptide library, the polypeptide of the library which increases reporter gene expression is identified. The method also allows identifing a protein which modulates the activation of transcription factor activation domain, and determining modulators of NF-κB or BCMA. Amino acids sequences of mouse and human BCMA are provided for drug preparation for treatment of cancer, apoptosis, viral infection, or inflammation.

L19 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:317214 CAPLUS
DOCUMENT NUMBER: 130:320823
TITLE: Methods of identifying agents that modulate leptin activity to screen for adiposity regulators
INVENTOR(S): Li, Cai; Friedman, Jeffrey M.
PATENT ASSIGNEE(S): The Rockefeller University, USA
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9923493	A1	19990514	WO 1998-US22797	19981027
W: CA, JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRIORITY APPLN. INFO.: US 1997-961809 A 19971031
US 1998-178691 A 19981026

AB The present invention discloses novel methods for identifying drugs that can help regulate adiposity and fat content of animals, particularly in mammals. The discovery that PTP-1D (protein tyrosine phosphatase 1D) binds to the phosphorylated leptin receptor, when the receptor contains a phosphorylated tyrosine-985, provides a novel means for identifying agents to aid in the regulation of body weight and adiposity. Thus the present invention exploits this prior unknown role of PTP-1D by providing means for potentially treating and curing abnormalities of the endogenous leptin pathway, as well as allowing for the elected modification of body mass.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 24 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 1999244591 EMBASE
TITLE: Design of generic biosensors based on green fluorescent proteins with allosteric sites by directed evolution.
AUTHOR: Doi N.; Yanagawa H.
CORPORATE SOURCE: H. Yanagawa, Mitsubishi Kasei Inst. Life Sciences, 11 Minamiooya, Machida, Tokyo 194-8511, Japan.
hyana@libra.ls.m-kagaku.co.jp
SOURCE: FEBS Letters, (1999) 453/3 (305-307).
Refs: 27
ISSN: 0014-5793 CODEN: FEBLAL

PUBLISHER IDENT.: S 0014-5793(99)00732-2
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Protein-engineering techniques have been adapted for the molecular design of biosensors that combine a molecular-recognition site with a **signal-transduction** function. The optical **signal -transduction** mechanism of green fluorescent protein (GFP) is most attractive, but hard to combine with a ligand-binding site. Here we describe a general **method** of creating entirely new molecular-recognition sites on GFPs. At the first step, a protein domain containing a desired molecular-binding site is inserted into a surface loop of **GFP**. Next, the insertional **fusion** protein is randomly mutated, and new allosteric proteins that undergo changes in fluorescence upon binding of target molecules are **selected** from the random library. We have tested this **methodology** by using TEM1 β-lactamase and its inhibitory protein as our model protein-ligand **system**. 'Allosteric GFP biosensors' constructed by this **method** may be used in a wide range of applications including biochemistry and cell biology.

L19 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:398478 CAPLUS
DOCUMENT NUMBER: 129:51715
TITLE: Chimeric integrin in methods and cell lines for identification of regulators of integrin activation and compositions identified thereby
INVENTOR(S): Ginsberg, Mark H.; Fenczik, Csilla
PATENT ASSIGNEE(S): Scripps Research Institute, USA
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9825144	A1	19980611	WO 1997-US22263		19971202
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
US 5932421	A	19990803	US 1997-948221		19971009
AU 9856900	A1	19980629	AU 1998-56900		19971202
PRIORITY APPLN. INFO.:			US 1996-33248P	P	19961206
			US 1997-948221	A	19971009
			WO 1997-US22263	W	19971202

AB A method for identifying regulators of integrin activation involve (a) establishing a selected cell line which contains a functional integrin and a chimeric polypeptide having a cytoplasmic domain of an integrin subunit fused to a polypeptide containing extracellular and transmembrane domains that are not functional integrin domains, so that the chimera can inhibit signaling activities of the functional integrin by interaction with integrin regulator mols. in the cytoplasm; (b) transfecting the cell line with a selected cDNA expression library; (c) expressing proteins of the cDNA expression library; and (d) identifying proteins which when overexpressed overcome the inhibition of signaling activities by the

chimeric polypeptide, the proteins being regulators of integrin. Methods of designing drugs to modify integrin function and cell lines for screening regulators of integrin activation are also provided. CD98, an early T-cell activation antigen, was identified, through this method, as a regulator of integrin function. Further, it was determined that the activity of this protein resides in the cytoplasmic tail of CD98, a small region susceptible to small mol. inhibition.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 26 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 1998381244 EMBASE

TITLE: Accumulation of the enterobacterial common antigen lipid II biosynthetic intermediate stimulates degP transcription in Escherichia coli.

AUTHOR: Danese P.N.; Oliver G.R.; Barr K.; Bowman G.D.; Rick P.D.; Silhavy T.J.

CORPORATE SOURCE: T.J. Silhavy, Department of Molecular Biology, Princeton University, Princeton, NJ 08544, United States. tsilhavy@molbio.princeton.edu

SOURCE: Journal of Bacteriology, (1998) 180/22 (5875-5884). Refs: 33 ISSN: 0021-9193 CODEN: JOBAAY

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 004 Microbiology

LANGUAGE: English

SUMMARY LANGUAGE: English

AB In Escherichia coli, transcription of the degP locus, which encodes a heat-shock-inducible periplasmic protease, is controlled by two parallel **signal transduction** systems that each monitor extracytoplasmic protein physiology. For example, the heat-shock-inducible sigma factor, σ(E), controls degP transcription in response to the overproduction and folded state of various extracytoplasmic proteins. Similarly, the CpxA/R two- component **signal transduction system** increases degP transcription in response to the overproduction of a variety of extracytoplasmic proteins. Since degP transcription is attuned to the physiology of extracytoplasmic proteins, we were interested in **identifying** negative transcriptional regulators of degP. To this end, we **screened** for null mutations that increased transcription from a strain containing a degP-lacZ **reporter fusion**. Through this approach, we **identified** null mutations in the wecE, rm/A(EcA), and wecF loci that increase degP transcription. Interestingly, each of these loci is responsible for synthesis of the enterobacterial common antigen (ECA), a glycolipid situated on the outer leaflet of the outer membrane of members of the family Enterobacteriaceae. However, these null mutations do not stimulate degP transcription by eliminating ECA biosynthesis. Rather, the wecE, rmlA(ECA), and wecF null mutations each impede the same step in ECA biosynthesis, and it is the accumulation of the ECA biosynthetic intermediate, lipid II, that causes the observed perturbations. For example, the lipid II-accumulating mutant strains each (i) confer upon E. coli a sensitivity to bile salts, (ii) confer a sensitivity to the synthesis of the outer membrane protein LamB, and (iii) stimulate both the Cpx pathway and σ(E) activity. These phenotypes suggest that the accumulation of lipid II perturbs the structure of the bacterial outer membrane. Furthermore, these results underscore the notion that although the Cpx and σ(E) systems function in parallel to regulate degP transcription, they can be simultaneously activated by the same perturbation.

L19 ANSWER 27 OF 27 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 1998133762 EMBASE
TITLE: [Molecular mechanisms of inflammation: Interleukin-6-type cytokine signaling through the Jak/STAT pathway]. MOLEKULARE MECHANISMEN DER ENTZUNDUNG: SIGNALTRANSDUKTION VON INTERLEUKIN-6-TYP-ZYTOKINEN UBER DEN JAK/STAT-WEG.
AUTHOR: Heinrich P.C.; Behrmann I.; Graeve L.; Grotzinger J.; Haan S.; Horn F.; Horsten U.; Kerr I.; May P.; Muller-Newen G.; Terstegen L.; Thiel S.
CORPORATE SOURCE: Dr. P.C. Heinrich, Institut fur Biochemie, Rheinisch-Westfalische Tech. Hoch., Pauwelsstrasse 30, D-52057 Aachen, Germany
SOURCE: Nieren- und Hochdruckkrankheiten, (1998) 27/3 (123-131). Refs: 17
ISSN: 0300-5224 CODEN: NIHOD
COUNTRY: Germany
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 022 Human Genetics
026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
LANGUAGE: German
SUMMARY LANGUAGE: English; German
AB We have found that IL-6 and the IL-6-type cytokines (IL-11, oncostatin- M, LIF, CNTF, CT-1) **signal** through the Jak/STAT pathway. IL-6 first binds to its specific receptor (gp80), the IL-6/gp80 complex subsequently interacts with 2 molecules of the **signal** transducer gp130 resulting in a high affinity complex. Ternary complex formation of IL-6, gp80, and gp130 results in the activation of the Jak family tyrosine kinases Jak1, Jak2, and Tyk2. Using mutant fibrosarcoma cells lacking the different Jak kinases, Jak1 was found to play a major role in the tyrosine phosphorylation of gp130 and activation of the transcription factors STAT1 and STAT3. Out of the 6 tyrosine residues present in the cytoplasmic region of gp130 we have found that the 4 distal tyrosine residues are able to activate STAT3, the last 2 tyrosine residues lead to STAT1 activation, whereas STAT5 could not be activated via gp130. After tyrosine phosphorylation the STAT factors homo- or hetero-dimerize and translocate to the nucleus where they bind to response elements of IL-6 target genes. The IL-6-induced STAT translocation could be shown in COS- and HeLa cells with a STAT3-**GFP fusion** protein. By specific activation of STAT1, 3, and 5 together with the use of CAT reporter gene **assays** in hepatoma (HepG2) cells we could show that IL-6 target genes (γ-fibrinogen, haptoglobin, hemopexin, CRP) are mainly induced by STAT3. In previous studies we have shown that IL-6 is internalized and its receptor is down-regulated. A di-leucine motif in the cytoplasmic tail of gp130 was found to be responsible for the endocytosis of IL-6/gp80 complexes. Using a heterochimeric receptor **system** we now show that internalization and **signal transduction** are 2 independent processes.

=> d his

(FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005)

FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 12:03:27 ON 28 JAN 2005
L1 460 S (LURIA, S?)/IN,AU
L2 468164 S SIGNAL (S) TRANSDUCTION
L3 4 S L1 AND L2
L4 3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5 1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
L6 1 S L5 NOT L4
L7 14 S (LURIA, SYLV?)/IN,AU
L8 12 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)
L9 10 S L8 NOT L3
L10 21847 S ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)

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L11        3786 S L10 (S) (SCREEN? OR IDENTIF? OR SELECT? OR ASSAY?)
L12          69 S L11 (S) (TRANSACTIVAT? OR GAL4 OR GAL-4 OR (("T7" OR "T3" OR
L13           0 S L11 AND L7
L14          21 S L12 AND (FUSION OR HYBRID OR CHIMER?)
L15          21 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)
L16           1 S L12 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L17          31 S L11 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L18          30 S L17 NOT L14
L19          27 DUPLICATE REMOVE L18 (3 DUPLICATES REMOVED)

=> s ((fusion or hybrid or chimer?) (3n) (gfp or bfp or cfp or yfp or fluorescen?
or reporter))
L20       17415 ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CFP OR YFP
                OR FLUORESCEN? OR REPORTER))

=> s l20 and (feedback (s) loop)
L21          31 L20 AND (FEEDBACK (S) LOOP)

=> s l21 and (signal (s) transduction)
L22           3 L21 AND (SIGNAL (S) TRANSDUCTION)

=> duplicate remove l21
DUPLICATE PREFERENCE IS 'MEDLINE, EMBASE, BIOSIS, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L21
L23           9 DUPLICATE REMOVE L21 (22 DUPLICATES REMOVED)

=> s l23 and l22
L24           1 L23 AND L22

=> d ibib ab l24

L24  ANSWER 1 OF 1     MEDLINE on STN
ACCESSION NUMBER:    96430529     MEDLINE
DOCUMENT NUMBER:     PubMed ID: 8833654
TITLE:               Angiotensinogen gene activation by angiotensin II is
                     mediated by the rel A (nuclear factor-kappaB p65)
                     transcription factor: one mechanism for the renin
                     angiotensin system positive feedback loop
                     in hepatocytes.
AUTHOR:              Li J; Brasier A R
CORPORATE SOURCE:    Departments Internal Medicine and Sealy Center for
                     Molecular Science, University of Texas Medical Branch,
                     Galveston, USA.
CONTRACT NUMBER:     1R29-HL-45500 (NHLBI)
SOURCE:              Molecular endocrinology (Baltimore, Md.), (1996 Mar) 10 (3)
                     252-64.
                     Journal code: 8801431. ISSN: 0888-8809.
PUB. COUNTRY:        United States
DOCUMENT TYPE:       Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:            English
FILE SEGMENT:        Priority Journals
ENTRY MONTH:         199705
ENTRY DATE:          Entered STN: 19970507
                     Last Updated on STN: 20000303
                     Entered Medline: 19970501
AB   The renin-angiotensin system controls blood pressure through the enzymatic
     production of the vasopressor angiotensin II (AII) from the
     angiotensinogen (AGT) precursor. Intravascular AII production stimulates
     de novo synthesis of its precursor in a positive feedback
     loop through increased gene expression. In this study, we
     investigate the effects of AII on AGT gene expression. At nanomolar
     concentrations, All activates transcription of the native AGT gene; this
     region is mapped to the AGT gene multihormone-inducible enhancer (-615 to
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-470). Within the multihormone-inducible enhancer, site-directed mutations of the acute-phase response element (APRE) that interfere with nuclear factor-kappa B (NF-kappa B) transcription factor binding also abolish AII responsiveness. The APRE functions as a rapidly inducible AII-inducible enhancer with peak reporter activity detected after a 4-h stimulation; this effect occurs only when the type 1 AII receptor is expressed. AII induces sequence-specific NF-KB binding to the APRE in HepG2 nuclear extracts. Moreover, AII infusions of primary rat hepatocyte cultures produces a rapid 4-fold increase in sequence-specific NF-kappa B binding to the APRE. Antibodies against the transcriptional activator subunit, Rel A, quantitatively supershift the nucleoprotein complex, whereas antibodies to other NF-kappa B members do not, demonstrating that Rel A APRE-binding activity is AII-inducible. Transient overexpression of Rel A(1-551) activates the AGT multihormone-inducible enhancer. AII-inducible domains of Rel A were mapped by cotransfecting a chimeric GAL4-Rel A **fusion** protein with a **reporter** gene containing GAL4-binding sites. GAL4-Rel A(1-551) was an AII-inducible transactivator. Deletion of the NH(2)-terminal 254 amino acids of Rel A produces a constitutive transactivator, indicating that Rel A is activated by AII in a manner dependent on its NH(2) terminus. These studies define one mechanism for the renin-angiotensin system positive **feedback loop** in hepatocyctes.

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=> d his

     (FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 12:03:27 ON 28 JAN 2005
L1           460 S (LURIA, S?)/IN,AU
L2        468164 S SIGNAL (S) TRANSDUCTION
L3             4 S L1 AND L2
L4             3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5             1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
L6             1 S L5 NOT L4
L7            14 S (LURIA, SYLV?)/IN,AU
L8            12 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)
L9            10 S L8 NOT L3
L10        21847 S ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)
L11         3786 S L10 (S) (SCREEN? OR IDENTIF? OR SELECT? OR ASSAY?)
L12           69 S L11 (S) (TRANSACTIVAT? OR GAL4 OR GAL-4 OR (("T7" OR "T3" OR
L13            0 S L11 AND L7
L14           21 S L12 AND (FUSION OR HYBRID OR CHIMER?)
L15           21 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)
L16            1 S L12 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L17           31 S L11 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L18           30 S L17 NOT L14
L19           27 DUPLICATE REMOVE L18 (3 DUPLICATES REMOVED)
L20        17415 S ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CFP OR YFP
L21           31 S L20 AND (FEEDBACK (S) LOOP)
L22            3 S L21 AND (SIGNAL (S) TRANSDUCTION)
L23            9 DUPLICATE REMOVE L21 (22 DUPLICATES REMOVED)
L24            1 S L23 AND L22

=> d ibib ab l23 1-9

L23  ANSWER 1 OF 9     MEDLINE on STN                    DUPLICATE 1
ACCESSION NUMBER:   2005006927     IN-PROCESS
DOCUMENT NUMBER:    PubMed ID: 15632084
TITLE:              Extracellular signal-regulated kinases phosphorylate
                    mitogen-activated protein kinase phosphatase 3/DUSP6 at
                    serines 159 and 197, two sites critical for its proteasomal
                    degradation.
AUTHOR:             Marchetti Sandrine; Gimond Clotilde; Chambard Jean-Claude;
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Touboul Thomas; Roux Daniele; Pouyssegur Jacques; Pages Gilles

CORPORATE SOURCE: Institute of Signaling, Developmental Biology and Cancer Research, CNRS UMR 6543, Centre Antoine Lacassagne, 33 Ave. de Valombrose, 06189 Nice, France.

SOURCE: Molecular and cellular biology, (2005 Jan) 25 (2) 854-64. Journal code: 8109087. ISSN: 0270-7306.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: IN-PROCESS; NONINDEXED; Priority Journals

ENTRY DATE: Entered STN: 20050106
Last Updated on STN: 20050122

AB Mitogen-activated protein (MAP) kinase phosphatases (MKPs) are dual-specificity phosphatases that dephosphorylate phosphothreonine and phosphotyrosine residues within MAP kinases. Here, we describe a novel posttranslational mechanism for regulating MKP-3/Pyst1/DUSP6, a member of the MKP family that is highly specific for extracellular signal-regulated kinase 1 and 2 (ERK1/2) inactivation. Using a fibroblast model in which the expression of either MKP-3 or a more stable MKP-3-green **fluorescent** protein (**GFP**) **chimera** was induced by tetracycline, we found that serum induces the phosphorylation of MKP-3 and its subsequent degradation by the proteasome in a MEK1 and MEK2 (MEK1/2)-ERK1/2-dependent manner. In vitro phosphorylation assays using glutathione S-transferase (GST)-MKP-3 fusion proteins indicated that ERK2 could phosphorylate MKP-3 on serines 159 and 197. Tetracycline-inducible cell clones expressing either single or double serine mutants of MKP-3 or MKP-3-GFP confirmed that these two sites are targeted by the MEK1/2-ERK1/2 module in vivo. Double serine mutants of MKP-3 or MKP-3-GFP were more efficiently protected from degradation than single mutants or wild-type MKP-3, indicating that phosphorylation of either serine by ERK1/2 enhances proteasomal degradation of MKP-3. Hence, double mutation caused a threefold increase in the half-life of MKP-3. Finally, we show that the phosphorylation of MKP-3 has no effect on its catalytic activity. Thus, ERK1/2 exert a positive **feedback loop** on their own activity by promoting the degradation of MKP-3, one of their major inactivators in the cytosol, a situation opposite to that described for the nuclear phosphatase MKP-1.

L23 ANSWER 2 OF 9 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 2004051345 MEDLINE

DOCUMENT NUMBER: PubMed ID: 14730303

TITLE: Dynamics of the p53-Mdm2 **feedback loop** in individual cells.

COMMENT: Comment in: Nat Genet. 2004 Feb;36(2):113-4. PubMed ID: 14752517

AUTHOR: Lahav Galit; Rosenfeld Nitzan; Sigal Alex; Geva-Zatorsky Naama; Levine Arnold J; Elowitz Michael B; Alon Uri

CORPORATE SOURCE: Department of Molecular Cell Biology, Weizmann Institute of Science, Rehovot 76100, Israel.

SOURCE: Nature genetics, (2004 Feb) 36 (2) 147-50. Journal code: 9216904. ISSN: 1061-4036.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200403

ENTRY DATE: Entered STN: 20040131
Last Updated on STN: 20040302
Entered Medline: 20040301

AB The tumor suppressor p53, one of the most intensely investigated proteins, is usually studied by experiments that are averaged over cell populations, potentially masking the dynamic behavior in individual cells. We present a system for following, in individual living cells, the dynamics of p53

and its negative regulator Mdm2 (refs. 1,4-7): this system uses functional p53-**CFP** and Mdm2-**YFP fusion** proteins and time-lapse fluorescence microscopy. We found that p53 was expressed in a series of discrete pulses after DNA damage. Genetically identical cells had different numbers of pulses: zero, one, two or more. The mean height and duration of each pulse were fixed and did not depend on the amount of DNA damage. The mean number of pulses, however, increased with DNA damage. This approach can be used to study other signaling systems and suggests that the p53-Mdm2 **feedback loop** generates a 'digital' clock that releases well-timed quanta of p53 until damage is repaired or the cell dies.

L23 ANSWER 3 OF 9 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2002669327 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12429043
TITLE: Characterization of a thyroid hormone-mediated short-**loop feedback** control of TSH receptor gene in an anaplastic human thyroid cancer cell line.
AUTHOR: Chen S-T; Lin J-D; Lin K-H
CORPORATE SOURCE: Division of Endocrinology and Metabolism, Chang Gung Memorial Hospital, Kweishan, Taoyuan, Taiwan, Republic of China.. stc1105@adm.cgmh.org.tw
SOURCE: Journal of endocrinology, (2002 Nov) 175 (2) 459-65. Journal code: 0375363. ISSN: 0022-0795.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200301
ENTRY DATE: Entered STN: 20021114
Last Updated on STN: 20030107
Entered Medline: 20030106

AB The expression of TSH receptor (TSHR) gene is frequently lost in thyroid cancers during the process of dedifferentiation that involves perturbation of several nuclear transcription factors. We have established that thyroid hormone receptor beta1 (TRbeta1) is associated with the loss of TSHR gene expression in an anaplastic human thyroid cancer cell line, ARO. To demonstrate that TRbeta1 regulates TSHR gene expression, we performed electrophoresis mobility shift and 3,5,3'-triiodothyronine (T3) transactivation assays. As expected, TRbeta1 bound the synthesized oligomer containing TSHR promoter sequence by heterodimerizing with retinoid X receptor. When a **chimeric reporter** pTRCAT5'-146 enclosing the minimal TSHR promoter was applied for T3 transactivation assay, two TRbeta1-overexpressing transfectants of ARO cells (ARO1 and ARO2) demonstrated higher basal activity than their parental cells. Consequentially, T3 suppressed the reporter gene activity only in ARO1 and ARO2, but not in ARO cells. A point mutation creating a cAMP response element (CRE) in the reporter pTRCAT5'-146 CRE led to T3-induced suppression of the reporter gene in ARO cells without changing the basal or T3-induced activities in ARO1 and ARO2 cells. We conclude that the regulatory effect of T3 on TSHR gene expression is TR- and promoter DNA sequence-determined.

L23 ANSWER 4 OF 9 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2001509501 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11557529
TITLE: L-histidine decarboxylase decreases its own transcription through downregulation of ERK activity.
AUTHOR: Colucci R; Fleming J V; Xavier R; Wang T C
CORPORATE SOURCE: Harvard Medical School and Gastrointestinal Unit, Massachusetts General Hospital, Boston, Massachusetts 02114, USA.
CONTRACT NUMBER: RO1-DK-48077 (NIDDK)
SOURCE: American journal of physiology. Gastrointestinal and liver

physiology, (2001 Oct) 281 (4) G1081-91.
Journal code: 100901227. ISSN: 0193-1857.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200110
ENTRY DATE: Entered STN: 20010917
Last Updated on STN: 20011029
Entered Medline: 20011025

AB A poorly defined negative **feedback loop** decreases transcription of the L-histidine decarboxylase (HDC) gene. To help understand this regulation, we have studied the effect of HDC protein expression on HDC gene transcription in transfected AGS-B cells. Expression of the rat HDC protein inhibited HDC promoter activity in a dose-dependent fashion. The region of the HDC promoter mediating this inhibitory effect corresponded to a previously defined gastrin and extracellular signal-related kinase (ERK)-1 response element. Overexpression of the HDC protein reduced nuclear factor binding in this region. Experiments employing specific histamine receptor agonists indicated that the inhibitory effect was not dependent on histamine production, and studies with the HDC inhibitor alpha-fluoromethylhistidine revealed that inhibition was unrelated to enzyme activity. Instead, an enzymatically inactive region at the amino terminal of the HDC enzyme (residues 1-271) was shown to mediate inhibition. **Fluorescent chimeras** containing this domain were not targeted to the nucleus, arguing against specific inhibition of the HDC transcription machinery. Instead, we found that overexpression of HDC protein decreased ERK protein levels and ERK activity and that the inhibitory effect of HDC protein could be overcome by overexpression of ERK1. These data suggest a novel feedback-inhibitory role for amino terminal sequences of the HDC protein.

L23 ANSWER 5 OF 9 EMBASE
on STN
ACCESSION NUMBER: 2000266768 EMBASE
TITLE: Framework for online optimization of recombinant protein in high-cell- density Escherichia coli cultures using **GFP-fusion** monitoring.
AUTHOR: Hee Jeong Chae; DeLisa M.P.; Hyung Joon Cha; Weigand W.A.; Rao G.; Bentley W.E.
CORPORATE SOURCE: W.E. Bentley, Ctr. for Agricultural Biotechnology, Univ. of Maryland Biotechology Inst., College Park, MD 20742, United States. bentley@eng.umd.edu
SOURCE: Biotechnology and Bioengineering, (5 Aug 2000) 69/3 (275-285).
Refs: 41
ISSN: 0006-3592 CODEN: BIBIAU
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English

AB A framework for the online optimization of protein induction using green fluorescent protein (GFP)-monitoring technology was developed for high-cell- density cultivation of Escherichia coli A simple and unstructured mathematical model was developed that described well the dynamics of cloned chloramphenicol acetyltransferase (CAT) production in E. coli JM105 was developed. A sequential quadratic programming (SQP) optimization algorithm was used to estimate model parameter values and to solve optimal open-**loop** control problems for piecewise control of inducer feed rates that maximize productivity. The optimal inducer feeding profile for an arabinose induction system was different from that of an isopropyl-β-D-thiogalactopyranoside (IPTG) induction system. Also, model-based online parameter estimation and online optimization

algorithms were developed to determine optimal inducer feeding rates for eventual use of a **feedback** signal from a GFP fluorescence probe (direct product monitoring with 95-minute time delay). Because the numerical algorithms required minimal processing time, the potential for product-based and model-based online optimal control methodology can be realized. (C) 2000 John Wiley and Sons, Inc.

L23 ANSWER 6 OF 9 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 1998007663 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9349507
TITLE: p53 is phosphorylated in vitro and in vivo by the delta and epsilon isoforms of casein kinase 1 and enhances the level of casein kinase 1 delta in response to topoisomerase-directed drugs.
AUTHOR: Knippschild U; Milne D M; Campbell L E; DeMaggio A J; Christenson E; Hoekstra M F; Meek D W
CORPORATE SOURCE: Biomedical Research Centre, Ninewells Hospital and Medical School, University of Dundee, UK.
SOURCE: Oncogene, (1997 Oct 2) 15 (14) 1727-36.
Journal code: 8711562. ISSN: 0950-9232.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199711
ENTRY DATE: Entered STN: 19971224
Last Updated on STN: 19971224
Entered Medline: 19971113

AB The p53 tumour suppressor protein plays a key role in the integration of stress signals. Multi-site phosphorylation of p53 may play an integral part in the transmission of these signals and is catalysed by many different protein kinases including an unidentified p53-N-terminus-targeted protein kinase (p53NK) which phosphorylates a group of sites at the N-terminus of the protein. In this paper, we present evidence that the delta and epsilon isoforms of casein kinase 1 (CK1delta and CK1epsilon) show identical features to p53NK and can phosphorylate p53 both in vitro and in vivo. Recombinant, purified glutathione S-transferase (GST)-CK1delta and GST-CK1epsilon fusion proteins each phosphorylate p53 in vitro at serines 4, 6 and 9, the sites recognised by p53NK. Furthermore, p53NK (i) co-purifies with CK1delta/epsilon, (ii) shares identical kinetic properties to CK1delta/epsilon, and (iii) is inhibited by a CK1delta/epsilon-specific inhibitor (IC261). In addition, CK1delta is also present in purified preparations of p53NK as judged by immunoanalysis using a CK1delta-specific monoclonal antibody. Treatment of murine SV3T3 cells with IC261 specifically blocked phosphorylation in vivo of the CK1delta/epsilon phosphorylation sites in p53, indicating that p53 interacts physiologically with CK1delta and/or CK1epsilon. Similarly, over-expression of a green **fluorescent** protein (**GFP**)-CK1delta **fusion** protein led to hyper-phosphorylation of p53 at its N-terminus. Treatment of MethAp53ts cells with the topoisomerase-directed drugs etoposide or camptothecin led to increases in both CK1delta-mRNA and -protein levels in a manner dependent on the integrity of p53. These data suggest that p53 is phosphorylated by CK1delta and CK1epsilon and additionally that there may be a regulatory **feedback loop** involving p53 and CK1delta.

L23 ANSWER 7 OF 9 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 1998101861 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9438878
TITLE: Rhythmic expression of a PER-reporter in the Malpighian tubules of decapitated Drosophila: evidence for a brain-independent circadian clock.
AUTHOR: Hege D M; Stanewsky R; Hall J C; Giebultowicz J M
CORPORATE SOURCE: Department of Entomology, Oregon State University,

Corvallis 97331, USA.
CONTRACT NUMBER: GM33205 (NIGMS)
SOURCE: Journal of biological rhythms, (1997 Aug) 12 (4) 300-8.
Journal code: 8700115. ISSN: 0748-7304.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199802
ENTRY DATE: Entered STN: 19980306
Last Updated on STN: 19980306
Entered Medline: 19980226

AB The protein product (PER) of the Drosophila clock gene, period (per), is involved in a molecular **feedback loop** in which PER inhibits the transcription of its own mRNA. This feedback causes the PER protein to cycle in a circadian manner, and this cycling in specific regions of the brain (the presumed location of the central pacemaker) is responsible for the rhythmicity of locomotor activity and possibly eclosion. PER has also been detected in several nonneural tissues in the abdomen, but whether PER exhibits free-running and light-sensitive cycles in any of these tissues is not known. In this study, the authors assayed the spatial and temporal distribution of a PER-reporter expressed in transgenic flies carrying a per-lacZ construct, which was shown to cycle in per-expressing brain cells. The authors demonstrate that this PER-**reporter fusion** protein cycles in the Malpighian tubules, showing first cytoplasmic accumulation, which is then followed by translocation of the signal into the nucleus. To test whether this rhythm was controlled by the brain, flies were decapitated and assayed for 3 days after decapitation. Expression patterns of PER-reporter in decapitated flies were nearly identical to those in intact flies reared in normal light-dark cycles, reversed light-dark cycles (phase shifted), and constant darkness. These results suggest that the Malpighian tubules contain a circadian pacemaker that functions independently of the brain.

L23 ANSWER 8 OF 9 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 96430529 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8833654
TITLE: Angiotensinogen gene activation by angiotensin II is mediated by the rel A (nuclear factor-kappaB p65) transcription factor: one mechanism for the renin angiotensin system positive **feedback loop** in hepatocytes.
AUTHOR: Li J; Brasier A R
CORPORATE SOURCE: Departments Internal Medicine and Sealy Center for Molecular Science, University of Texas Medical Branch, Galveston, USA.
CONTRACT NUMBER: 1R29-HL-45500 (NHLBI)
SOURCE: Molecular endocrinology (Baltimore, Md.), (1996 Mar) 10 (3) 252-64.
Journal code: 8801431. ISSN: 0888-8809.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199705
ENTRY DATE: Entered STN: 19970507
Last Updated on STN: 20000303
Entered Medline: 19970501

AB The renin-angiotensin system controls blood pressure through the enzymatic production of the vasopressor angiotensin II (AII) from the angiotensinogen (AGT) precursor. Intravascular AII production stimulates de novo synthesis of its precursor in a positive **feedback loop** through increased gene expression. In this study, we investigate the effects of AII on AGT gene expression. At nanomolar

concentrations, All activates transcription of the native AGT gene; this region is mapped to the AGT gene multihormone-inducible enhancer (-615 to -470). Within the multihormone-inducible enhancer, site-directed mutations of the acute-phase response element (APRE) that interfere with nuclear factor-kappa B (NF-kappa B) transcription factor binding also abolish All responsiveness. The APRE functions as a rapidly inducible All-inducible enhancer with peak reporter activity detected after a 4-h stimulation; this effect occurs only when the type 1 AII receptor is expressed. All induces sequence-specific NF-KB binding to the APRE in HepG2 nuclear extracts. Moreover, AII infusions of primary rat hepatocyte cultures produces a rapid 4-fold increase in sequence-specific NF-kappa B binding to the APRE. Antibodies against the transcriptional activator subunit, Rel A, quantitatively supershift the nucleoprotein complex, whereas antibodies to other NF-kappa B members do not, demonstrating that Rel A APRE-binding activity is AII-inducible. Transient overexpression of Rel A(1-551) activates the AGT multihormone-inducible enhancer. AII-inducible domains of Rel A were mapped by cotransfecting a chimeric GAL4-Rel A **fusion** protein with a **reporter** gene containing GAL4-binding sites. GAL4-Rel A(1-551) was an AII-inducible transactivator. Deletion of the NH(2)-terminal 254 amino acids of Rel A produces a constitutive transactivator, indicating that Rel A is activated by AII in a manner dependent on its NH(2) terminus. These studies define one mechanism for the renin-angiotensin system positive **feedback loop** in hepatocyctes.

L23 ANSWER 9 OF 9 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 96207559 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8670127
TITLE: Evidence for an inhibitory **feedback loop** regulating simian virus 40 large T-antigen fusion protein nuclear transport.
AUTHOR: Seydel U; Jans D A
CORPORATE SOURCE: Institut fur Medizinische Physik und Biophysik, Westfallsche Wilhelms Universitat, Munster, Germany.
SOURCE: Biochemical journal, (1996 Apr 1) 315 (Pt 1) 33-9. Journal code: 2984726R. ISSN: 0264-6021.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199608
ENTRY DATE: Entered STN: 19960819
Last Updated on STN: 19970203
Entered Medline: 19960805

AB Nuclear protein import is central to eukaryotic cell function. It is dependent on ATP, temperature and cytosolic factors, and requires specific targeting sequences called nuclear localization signals (NLSs). Nuclear import kinetics was studied in vitro using digitonin-permeabilized cells of the HTC rat hepatoma cell line and a **fluorescently** labelled beta-galactosidase **fusion** protein carrying amino acids 111-135 of the simian virus 40 large T-antigen (T-ag), including the NLS. Nuclear accumulation was rapid, reaching steady-state after about 80 min at 37 degrees C (t1/2 at about 17 min). Surprisingly, maximal nuclear concentration was found to be directly proportional to the concentration of the cytosolic extract and of cytoplasmic T-ag protein. Neither preincubation of cells for 1 h at 37 degrees C before the addition of T-ag protein nor the addition of fresh transport medium after 1 h and continuation of the incubation for another hour affected the maximal nuclear concentration. If cells were allowed to accumulate T-ag protein for 1 h before the addition of fresh transport medium containing different concentrations of T-ag protein and incubated for a further hour, the maximal nuclear concentration did not change unless the concentration of T-ag protein in the second transport mixture exceeded that in the first, in which case the nuclear concentration increased. Nuclear import of T-ag

thus appeared (i) to be strictly unidirectional over 2 h at 37 degrees C and (ii) to be regulated by an inhibitory **feedback loop** , whereby the cytosolic concentration of protein appears to determine directly the precise end point of nuclear accumulation. This study represents the first characterization of this previously undescribed mechanism of regulation of nuclear protein import.

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=> d his

     (FILE 'HOME' ENTERED AT 12:03:04 ON 28 JAN 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 12:03:27 ON 28 JAN 2005
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L2        468164 S SIGNAL (S) TRANSDUCTION
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L4             3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5             1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
L6             1 S L5 NOT L4
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L9            10 S L8 NOT L3
L10        21847 S ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)
L11         3786 S L10 (S) (SCREEN? OR IDENTIF? OR SELECT? OR ASSAY?)
L12           69 S L11 (S) (TRANSACTIVAT? OR GAL4 OR GAL-4 OR (("T7" OR "T3" OR
L13            0 S L11 AND L7
L14           21 S L12 AND (FUSION OR HYBRID OR CHIMER?)
L15           21 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)
L16            1 S L12 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L17           31 S L11 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L18           30 S L17 NOT L14
L19           27 DUPLICATE REMOVE L18 (3 DUPLICATES REMOVED)
L20        17415 S ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CFP OR YFP
L21           31 S L20 AND (FEEDBACK (S) LOOP)
L22            3 S L21 AND (SIGNAL (S) TRANSDUCTION)
L23            9 DUPLICATE REMOVE L21 (22 DUPLICATES REMOVED)
L24            1 S L23 AND L22

=> s l20 (s) (pluralit? or librar?)
L25          231 L20 (S) (PLURALIT? OR LIBRAR?)

=> s l25 and (signal (2w) transduction)
L26           15 L25 AND (SIGNAL (2W) TRANSDUCTION)

=> duplicate remove l26
DUPLICATE PREFERENCE IS 'EMBASE, CAPLUS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L26
L27           15 DUPLICATE REMOVE L26 (0 DUPLICATES REMOVED)

=> d ti l27 1-15

L27  ANSWER 1 OF 15  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   In vivo screening of protein-protein interactions with protein-fragment
     complementation assays

L27  ANSWER 2 OF 15  EMBASE  COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
TI   Novel functional interaction between the plasma membrane Ca(2+) pump 4b
     and the proapoptotic tumor suppressor Ras-associated factor 1 (RASSF1).

L27  ANSWER 3 OF 15  EMBASE  COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
     on STN
TI   Phage Shock Protein PspA of Escherichia coli Relieves Saturation of
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Protein Export via the Tat Pathway.

L27 ANSWER 4 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI HTRP - An immediate-early gene product induced by HSV1 infection in human embryo fibroblasts, is involved in cellular co-repressors.

L27 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods and compositions for identifying peptide aptamers capable of altering a cell phenotype

L27 ANSWER 6 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Characterization of FGFRL1, a Novel Fibroblast Growth Factor (FGF) Receptor Preferentially Expressed in Skeletal Tissues.

L27 ANSWER 7 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Transient requirement of the PrrA-PrrB two-component system for early intracellular multiplication of Mycobacterium tuberculosis.

L27 ANSWER 8 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Fluorescence imaging of mobility shifts: An expression cloning method for identification of cell signaling targets.

L27 ANSWER 9 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI A new way to rapidly create functional, fluorescent fusion proteins: Random insertion of GFP with an in vitro transposition reaction.

L27 ANSWER 10 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Differential gene expression during capillary morphogenesis in 3D collagen matrices: Regulated expression of genes involved in basement membrane matrix assembly, cell cycle progression, cellular differentiation and G-protein signaling.

L27 ANSWER 11 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Display of green fluorescent protein on Escherichia coli cell surface.

L27 ANSWER 12 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI The postmitotic growth suppressor necdin interacts with a calcium-binding protein (NEFA) in neuronal cytoplasm.

L27 ANSWER 13 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Ermap, a gene coding for a novel erythroid specific adhesion/receptor membrane protein.

L27 ANSWER 14 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI VAP-33 localizes to both an intracellular vesicle population and with occludin at the tight junction.

L27 ANSWER 15 OF 15 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
TI Design of generic biosensors based on green fluorescent proteins with allosteric sites by directed evolution.

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L4             3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5             1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
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L7            14 S (LURIA, SYLV?)/IN,AU
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L9            10 S L8 NOT L3
L10        21847 S ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)
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L13            0 S L11 AND L7
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L21           31 S L20 AND (FEEDBACK (S) LOOP)
L22            3 S L21 AND (SIGNAL (S) TRANSDUCTION)
L23            9 DUPLICATE REMOVE L21 (22 DUPLICATES REMOVED)
L24            1 S L23 AND L22
L25          231 S L20 (S) (PLURALIT? OR LIBRAR?)
L26           15 S L25 AND (SIGNAL (2W) TRANSDUCTION)
L27           15 DUPLICATE REMOVE L26 (0 DUPLICATES REMOVED)

=> d ibib ab l27 1

L27  ANSWER 1 OF 15  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:995709  CAPLUS
DOCUMENT NUMBER:          141:422002
TITLE:                    In vivo screening of protein-protein interactions with
                          protein-fragment complementation assays
INVENTOR(S):              Watson, Michnick Stephen William; Remy, Ingrid;
                          Lamerdin, Jane
PATENT ASSIGNEE(S):       Can.
SOURCE:                   U.S. Pat. Appl. Publ., 38 pp., Cont.-in-part of U.S.
                          Ser. No. 603,885.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   7
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     --------------       ----   --------    -------------------      --------
     US 2004229240         A1    20041118    US 2003-728355           20031205
     US 6270964            B1    20010807    US 1998-17412            19980202
     CA 2244349            AA    20000130    CA 1998-2244349          19980730
PRIORITY APPLN. INFO.:                       US 1998-17412       A2   19980202
                                             US 2000-603885      A2   20000626
                                             CA 1997-2196496     A    19970131
AB   The present invention describes rapid and efficient methods to screen for
     biomol. interactions in vivo based on protein fragment complementation
     assays (PCA). Examples are given that demonstrate the utility of the
     invention and the specific advantages of PCA that are not met by other
     library screening methods. In a first example, we demonstrate an in vivo
     library-vs.-library screening strategy that has numerous applications in
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the identification of novel protein-protein interactions and in directed evolution. In another example we demonstrate the detection of protein-protein interactions starting with defined (full-length) cDNAs, and the concomitant generation of functional assays that provide initial validation of the cDNA products as being biol. relevant. In yet another example we demonstrate cDNA library screening in mammalian cells using a bait-vs.-library strategy combined with fluorescence detection. In a further example we systematically screened a large cDNA collection using automated PCA, combined with quant. detection of protein-protein complexes. We show that the invention enables bait-vs.-library, library-vs.-library and defined gene screening in any type of cell or cellular context, and using a wide range of reporters and detection methods. The invention allows for identifying and validating genes involved in any cellular process and also provide ready-made assays to study effects of potential drugs, proteins or gene knockouts on specific pathways. Protein and cDNA libraries were screened using fusion proteins with complementation fragments of dihydrofolate reductase, green fluorescent protein, or yellow fluorescent protein.

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L9            10 S L8 NOT L3
L10        21847 S ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)
L11         3786 S L10 (S) (SCREEN? OR IDENTIF? OR SELECT? OR ASSAY?)
L12           69 S L11 (S) (TRANSACTIVAT? OR GAL4 OR GAL-4 OR (("T7" OR "T3" OR
L13            0 S L11 AND L7
L14           21 S L12 AND (FUSION OR HYBRID OR CHIMER?)
L15           21 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)
L16            1 S L12 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L17           31 S L11 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L18           30 S L17 NOT L14
L19           27 DUPLICATE REMOVE L18 (3 DUPLICATES REMOVED)
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L22            3 S L21 AND (SIGNAL (S) TRANSDUCTION)
L23            9 DUPLICATE REMOVE L21 (22 DUPLICATES REMOVED)
L24            1 S L23 AND L22
L25          231 S L20 (S) (PLURALIT? OR LIBRAR?)
L26           15 S L25 AND (SIGNAL (2W) TRANSDUCTION)
L27           15 DUPLICATE REMOVE L26 (0 DUPLICATES REMOVED)

=> s l26 and feedback
L28            0 L26 AND FEEDBACK

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L2        468164 S SIGNAL (S) TRANSDUCTION
L3             4 S L1 AND L2
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L4            3 DUPLICATE REMOVE L3 (1 DUPLICATE REMOVED)
L5            1 S L1 AND ((PROTEIN OR POLYPEPTIDE) (3N) FUSION?)
L6            1 S L5 NOT L4
L7           14 S (LURIA, SYLV?)/IN,AU
L8           12 DUPLICATE REMOVE L7 (2 DUPLICATES REMOVED)
L9           10 S L8 NOT L3
L10       21847 S ((SYSTEM OR METHOD?) (S) SIGNAL (S) TRANSDUCTION)
L11        3786 S L10 (S) (SCREEN? OR IDENTIF? OR SELECT? OR ASSAY?)
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L13           0 S L11 AND L7
L14          21 S L12 AND (FUSION OR HYBRID OR CHIMER?)
L15          21 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)
L16           1 S L12 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L17          31 S L11 AND ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CF
L18          30 S L17 NOT L14
L19          27 DUPLICATE REMOVE L18 (3 DUPLICATES REMOVED)
L20       17415 S ((FUSION OR HYBRID OR CHIMER?) (3N) (GFP OR BFP OR CFP OR YFP
L21          31 S L20 AND (FEEDBACK (S) LOOP)
L22           3 S L21 AND (SIGNAL (S) TRANSDUCTION)
L23           9 DUPLICATE REMOVE L21 (22 DUPLICATES REMOVED)
L24           1 S L23 AND L22
L25         231 S L20 (S) (PLURALIT? OR LIBRAR?)
L26          15 S L25 AND (SIGNAL (2W) TRANSDUCTION)
L27          15 DUPLICATE REMOVE L26 (0 DUPLICATES REMOVED)
L28           0 S L26 AND FEEDBACK
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